# CITY OF BRADFORD

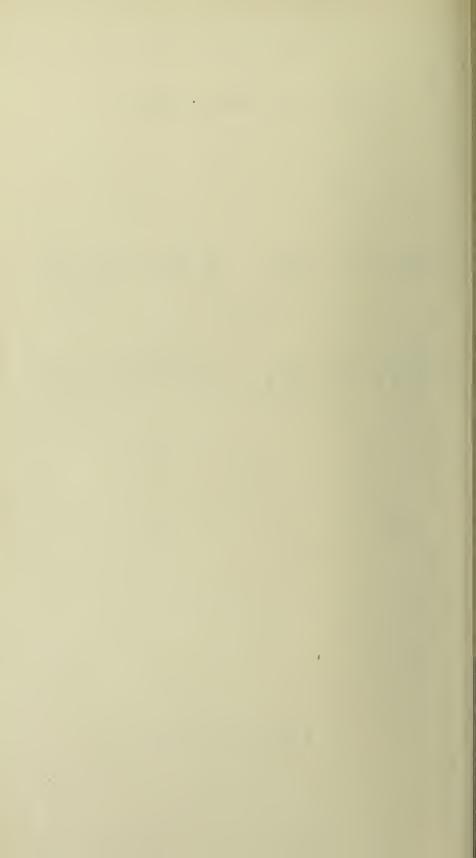
# ANNUAL REPORT

OF THE

# MEDICAL OFFICER

1932

IDLE, BRADFORD: WATMOUGHS LIMITED, PRINTERS.



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# PREFACE.

The following report on the health of the City has been compiled along the lines laid down in the Memorandum of the Ministry of Health.

The chief vital statistics for the year 1932 were:—

Estimated population		296,300
Birth-rate	• • •	13.56 per 1,000 of population
Death-rate		13.89 per 1,000 ,, ,,
Zymotic death-rate		0·26 per 1,000 ,, ,,
Tuberculosis death-rate	• • •	0.93 per 1,000 ,, ,,
Infantile mortality rate		75 per 1,000 births

As compared with 1931 these figures show no change in the birth-rate and a decrease of 0.32 in the death-rate. There was an increase of 0.02 in the zymotic death-rate, no change in the tuberculosis death-rate, while the infantile mortality showed an increase of 4.

JOHN J. BUCHAN,

Medical Officer of Health.

Town Hall, Bradford, 31st July, 1933.

#### I.—VITAL STATISFICS.

Area and Population. The City of Bradford has an area of 24,342 acres, and the population as adjusted by the Registrar General for the middle of 1932 is 296,300.

#### DISTRIBUTION AND DENSITY OF POPULATION.

	Wards			Estimated Population, 1932	Area of Wards in Acres	Persons per Acre
Allerton .		•••	• • •	17,310	2,864	6.0
Bolton .		•••		11,319	1,001	11.3
Bradford Moo	r			24,032	680	35.3
Clayton .		•••		5,459	1,462	3.7
East		•••		14,988	385	38.9
East Bowling		•••		15,709	565	27.8
Eccleshill .			•••	14,625	1,221	12.0
Exchange .		•••	•••	2,684	118	22.7
Great Horton		•••	•••	23,458	1,289	18.2
Heaton .		•••		16,159	883	18.3
Idle		•••	• • •	9,419	1,693	5.6
Listerhills .		•••	•••	14,403	321	44.9
Little Horton	•••	•••	•••	14,522	425	34.2
Manningham	•••	•••		20,648	449	46.0
North .		•••	•••	10,336	353	29.3
North Bierley	East	•••	•••	15,311	2,419	6.3
North Bierley	West	•••	•••	12,633	1,836	6.9
South .		•••	•••	13,333	303	44.0
Thornton .		•••		6,155	2,251	2.7
Tong			•••	6,495	2,659	2.4
West		•••		7,529	162	46.5
West Bowling	•••	•••		19,773	1,003	19.7
City		•••	•••	296,300	24,342	12.2

The average density of population varies from  $2\cdot 4$  persons per acre in Tong Ward to  $46\cdot 5$  in the West Ward.

Births. The number of births registered during the year was 4,019, of which 2,041 were males and 1,978 females. This gives a birth-rate for the year of 13.56 per 1,000, the same as last year.

#### AVERAGE QUINQUENNIAL BIRTH-RATES FROM 1871.

1871-75	 39.0	1896-1900	25.1	1921-25	 17.9
1876-80	 35.6	1901-05	22.6	1926-30	 15.2
1881-85	 31.1	1906-10	20.1	1931	 13.6
1886-90	 29.8	1911-15	19.0	1932	 13.6
1891-95	 27.5	1916-20	15.4		

Illegitimacy. Of the 4,019 births registered, 230 or 5.7 per cent., were illegitimate. This rate is 0.3 per cent. lower than in 1931.

Deaths. The total deaths occurring in Bradford in 1932 was 4,259; after making additions and deductions of persons dying away from their place of residence the number becomes 4,117. The corrected death-rate is therefore 13.89 per 1,000, or 0.32 per 1,000 lower than in 1931.

# AVERAGE QUINQUENNIAL DEATH-RATES FROM 1871.

1871-75	 25.9	1896-1900	0	17.9	1921-25	·	14.1
1876-80	 $22 \cdot 3$	1901-05		16.3	1926-30		14.2
1881-85	 19.9	1906-10		15.1	1931	•••	14.2
1886-90	 20.9	1911-15		15.5	1932		13.9
1891-95	 19.7	1916-20		16.0			

The death-rate among the male population in 1932 was 14.99, and among the female population 12.97 per 1,000.

The birth and death-rates in the various wards of the city are set out in the table on page 7.

7
BIRTH AND DEATH RATE IN EACH WARD.

		Nur	nber	Rates	per 1000
Ward		Births	Deaths	Births	Deaths
Allerton	•••	247	197	14.27	11.38
Bolton	•••	149	145	13.16	12.81
Bradford Moor	•••	320	325	13.32	13.52
Clayton	•••	69	68	12.64	12.46
East	•••	233	224	15.55	14.95
East Bowling		218	237	13.88	15.09
Eccleshill	•••	198	179	13.54	12.24
Exchange		54	45	20.12	16.77
Great Horton	•••	229	335	9.76	14.28
Heaton	•••	155	214	9.72	13.24
Idle	•••	114	134	12.10	14.23
Listerhills	•••	242	204	16.80	14.16
Little Horton	•••	179	199	12.33	13.70
Manningham	•••	335	304	16.22	14.72
North	•••	177	153	17.12	14.80
North Bierley East	•••	193	181	12.61	11.82
North Bierley West	•••	145	185	11.48	14.64
South	•••	216	201	16.20	15.08
Thornton	• • •	84	89	13.65	14.46
Tong		82	97	12.63	14.93
West	•••	143	133	18.99	17.66
West Bowling		237	268	11.99	13.55
City		4,019	4,117	13.56	13.89

Mortality at Different Ages. The following Table shows the total deaths in each age group during the past six years.

NUMBER OF DEATHS IN EACH YEAR AT DIFFERENT AGE PERIODS.

Age	1927	1928	1929	1930	1931	1932
Under l year	404	307	346	327	292	302
1— 2 years	111	59	114	67	61	35
2— 5 ,,	106	53	88	62	57	49
5—15 ,,	99	84	102	85	80	65
15—25 ,,	119	137	131	122	112	123
25-45 ,,	473	421	439	396	420	390
45—65 ,,	1255	1180	1342	1203	1260	1216
over 65 ,,	1704	1684	1966	1758	1995	1937

The infantile mortality rate for 1932 was 75 per 1,000 births, as against 71 for 1931. The mortality between one and sixty-five years was 7.0 per 1,000, and over sixty-five years 85.4 per 1,000.

Public Institutions. The accommodation in all kinds of institutions available for Bradford amounts to more than 3,500 beds or 1.2 per cent. of the population or about 1 in 80.

#### VOLUNTARY HOSPITALS, 1932.

Hospital	Number of beds	Character of cases	Cases admitted to Hospital	Cases treated in outdoor depart- men s
Bradford Royal Infirmary Bradford Children's Hospital Royal Eye and Ear Hospital	_	General Children Eye and Ear	1,799	16,331* 3,654 12,647
Totals	383	_	10,560	32,632

<sup>\*</sup> Exclusive of dental cases.

At the out-patient department of the Bradford Royal Infirmary 10,480 persons were treated as out-patients, and 5,851 as casualty cases, and 1,245 as dental cases. The number of attendances made by outpatients was 55,594, and by casualty cases 32,902. At the orthopædic department 54,605 treatments were given.

The total number of patients admitted to municipal hospitals in 1932 was 9,873. The nature of the cases is given elsewhere in this report in dealing with each hospital. On the 31st December, 1932, there were 200 patients maintained in institutions for the mentally defective.

At the end of the year the number of persons in receipt of relief in Bradford was: Institutional, 1,248, and Domiciliary, 9,083, equal to 33.2 per 1,000 of the population.

#### Proportion per 1,000 of Population in Receipt of Relief.

	Indoor	Outdoor	Total Chargeable
England and Wales	4·8	$\begin{array}{c c} 28 \cdot 2 \\ 29 \cdot 1 \end{array}$	33·0
Bradford	4·1		33·2

The number of deaths in public institutions is given in the tables on pages 10 and 11.

DEATHS IN PUBLIC INSTITUTIONS.

Name of Institution	1930	1931	1932
Bradford Public Assistance Institutions Clayton Public Assistance Institution Other Public Assistance Institutions Menston Asylum Storthes Hall Asylum Other Asylums Royal Infirmary Duke of York Home Children's Hospital Eye and Ear Hospital St. Catherine's Home Other Voluntary Hospitals St. Luke's Hospital Leeds Road Hospital Bierley Hall Hospital Grassington Sanatorium	73 56 6 37 30 4 181 — 76 11 8 13 914 41 34 5	101 21 2 24 38 5 174 27 62 12 4 18 940 45 35 9	100 24 4 31 40 4 182 27 63 8 9 20 996 40 44 4
North Bierley Joint Hospital Calverley Joint Hospital Other Institutions		$\frac{1}{3}$	$\frac{-}{8}$
Total	1,496	1,521	1,604

It will be noted that in 1932, 128 deaths, or 3·1 per cent. of the total deaths, occurred in Public Assistance Institutions; 75 deaths, or 1·8 per cent., in Lunatic Asylums; 309 deaths, or 7·5 per cent., in Voluntary Hospitals; and 1,084 deaths, or 26·3 per cent., in Municipal Hospitals.

The percentage of the total deaths in the city occurring in public institutions in 1932 was 39.0.

The age incidence of deaths in Public Institutions is snown in the following Table:—

	Public Assistance Institutions	Lunatic Asylums	Voluntary Hospitals	Municipal Hospitals	Other Institutions	Total	Per cent. of Deaths at each age.
Under 1			47	79		126	41.7
1— 2	_		5	17	_	22	62.9
2 5	_		11	15	_	26	52.7
5—15		1	21	23	1	46	70.8
15-25	3	5	19	57	2	86	69.9
25—45	1	14	48	152	1	216	55.4
45—65	28	31	98	336	4	497	40.9
65 and over	96	24	60	405	_	585	30.2
Total	128	75	309	1084	8	1604	39.0

This table shows that nearly 60 per cent. of the deaths between one year and forty-five years in the City occur in Public Institutions. It indicates that in the case of serious disease among the young a very large proportion now resort to hospitals for treatment.

Certification of Deaths. 3,599 deaths, or 87.4 per cent., were certified by medical practitioners, and 341, or 8.3 per cent., by the coroner after inquest, and 177 or 4.3 per cent., where, after enquiries were made by the coroner, it was found that inquests were unnecessary. The table on the following page shows the causes of death as found at the inquests held.

# RETURN SHOWING THE NUMBER OF INQUESTS HELD, AND VERDICTS RETURNED DURING THE YEAR ENDED 31ST DECEMBER, 1932.

1											
CAUSE OF DEATH	Wilful Murder	Manslaughter	Temporary	Intemperance	Anthrax	Accidental	Abortion	Natural Causes	Open Verdicts	Totals	Remarks
Violence		2								2	
Burns and Scald	s					14				14	
Railways											
Motor Vehicles		1				35				36	
Other Conveyance	s					5				5	enquiries were made, the
Machinery						4				4	ssary.
Falls				•••		45				45	ter enquiries were n were not necessary.
Suffocation						3				3	nquir not
Drowning				•••		1			1	2	er we i
Poisoning		•••		•••	•••	4	•••		1	5	where, aft
Other Causes				5	•••	5			3	13	
Suicides:—											There were also 177 cases Coroner found that
Drowning	•••	•••	3	•••	•••		•••			3	e alser
Hanging			4	•••	•••		•••			4	S We
Poisoning			17				•••		4	21	There
Other Means			4							4	ı
Natural Causes								180		180	
Totals		3	28	5		116		180	9	341	

TABLE A.

VITAL STATISTICS OF BRADFORD FROM 1901.

Year	Population	Birth Rate	Death Rate	Zymotic Death Rate	Infantile Mortality Rate
1901	279,969	23.0	16.7	1.86	168
1902	280,833	23.3	15.7	1.38	138
1903	281,799	23.4	16.2	1:32	148
1904	282,568	22•2	17.4	2.43	167
1905	283,441	21.3	15.3	1.45	144
1906	284,314	20.9	16.2	1.97	152
1907	285,189	20.1	14.7	0.91	124
1908	286,071	21.0	15.7	1.46	143
1909	286,954	19.2	14.6	0.68	116
1910	287,839	19·1	14.3	1.26	127
1911	288,723	19.0	15.0	1.60	140
1912	289,618	19.3	14.5	0.82	98
1913	290,540	19.6	15.1	1.10	128
1914	291,482	19.6	15.7	1.22	122
1915	*280,737	17.4	16.9	1.22	123
1916	*271,105	16.67	15.99	0.61	118
1917	*266,338	13.06	15.34	0.81	132
1918	*259,707	13.30	19.13	1.07	123
1919	*282,714	13.40	16.27	0.31	113
1920	293,979	20.52	13.31	0.42	93
1921	291,100	19·57	13.72	0.66	109
1922	291,300	17.92	14.02	0.36	87
1923	290,800	18·19	13.75	0.48	78
1924	290,200	16.94	14.86	0.31	92
1925	290,200	16.63	13.97	0.65	95
1926	288,700	16.31	13.58	0.47	92
1927	293,200	14.73	14.57	0.52	92
1928	288,500	15.32	13.60	0.38	69
1929	289,200	15.03	15.66	0.50	80
1930	293,254	14.92	13.45	0.44	75
1931	300,900	13.56	14.21	0.24	71
1932	296,300	13.56	13.89	0.26	75

<sup>\*</sup> Civil population.

#### II.—SANITARY CIRCUMSTANCES OF BRADFORD.

(A) Water. The water supply of Bradford, as provided by the Corporation Waterworks, is obtained from several upland surface sources and is distributed throughout the city by gravitation. The supply is constant and the water, on chemical analysis, exhibits a high standard of purity. Samples are taken regularly from the various sources of supply and distributing points in the City and the bacteriological results of the examinations made are shown on page 106. Generally the water is a soft upland water and one source of supply only exhibits in its natural state any plumbo-solvency. This is the supply from Thornton Moor, 1,241 feet above sea level, where water is collected from peaty uplands to the west of the City. This water is treated at the reservoir to reduce the degree of plumbo-solvency.

Average Results of Analyses for Plumbo-solvency of Water as distributed.

			Grains per Gallon		
			Lead	Lead taken up in 24 hours	
THORNTON MOOR WATER SU	PPLY.				
48 samples before 8 a.m.	•••		0.0052	0.0816	
48 samples after 1 p.m.	•••	•••	0.0009	0.0756	
INTERMEDIATE LEVEL SUPP	LY.				
48 samples before 8 a.m.	•••		0.0014	0.0489	
48 samples after 1 p.m.	•••		0.0000	0.0527	
Low Level Water Supply	7.				
48 samples before 8 a.m.	•••		0.0013	0.0679	
48 samples after 1 p.m.			0.0004	0.0685	

At the end of 1932, 58 farms and 175 houses in isolated localities were not connected with the Corporation mains. The supplies in these cases were under constant supervision, and the following table gives the chemical results of examination of the samples taken in 1932.

#### CHEMICAL ANALYSIS.

Number of Samples	Source	Organically Pure	Sewage Pollution	Dangerous Lead
13	Water in Cellar	7	6	_
15	Well	8	4	3
7	House Tap	7		-
4	Springs	4	_	-
2	House Pumps	_		2
41		26	10	5

The number of notices served to secure a proper water supply (Sec. 53 Bradford Corporation Act, 1925) was 24 affecting 59 houses and farms.

- (B) Drainage and Sewerage. There are 200 farms and 900 houses not connected with the Corporation sewers, 38 of the farms and 79 houses being in the Clayton area. Six farms and 71 houses have been connected during the year and ten cesspools have been abolished.
- (C) Closet Accommodation and Scavenging. During the year 455 new water closets were provided. These included 151 additional water closets for dwelling-houses. Thirty-nine water closets were substituted for waste water closets (tipper), and 142 were substituted for privies, the ashpits in connection with them being replaced by dust bins. One hundred and three water closets were provided for factories and workshops, and twenty for other premises.

ESTIMATE OF SANITARY ACCOMMODATION AT THE END OF 1932.

#### (i.) Dwelling-houses.

	No. of Houses	Water Closets	Waste Water Closets	Privier
More than one sanitary convenience to each house	6837 230	12677	463	
One to each house	$egin{array}{c} 14 \\ 52158 \\ 7017 \\ \end{array}$	52158	7017	30
Less than one to each house	477 20415	10753	_ _	477 —
	$ \begin{array}{r}     114 \\     1022 \\  \end{array} $		57 —	505
Totals	88284	75588	7537	1012

This table differs somewhat from the corresponding table in the report of 1931. It has been compiled after a special survey of all the houses in the City including those in Clearance Areas and those in isolated localities far removed from available sewers. Apart from such latter houses the work of conversion of privy middens has now been practically completed, there being now less than 100 of such conversions possible. In Clearance Areas there are still 145 privies, while the remaining number are on farms and outlying houses in the City.

Summary.	Number	Percentage
Houses with water closets	79,410	89.9
Houses with waste water closets	7,361	8.3
Houses with privies	1,513	1.8

#### (ii.) Business and other Premises.

	No. of Premises	Water Closets	Privies
Factories, workshops, and other business premises	4854	12906	26
Places of worship, schools, public institutions, clubs, &c.	705	4710	59
Totals	5559	17616	85

		1932
Number of water closets	•••	93,204
Number of waste water closets	•••	7,537
Number of privies		1,095
		101,836
Number of dry ashpits		6,640
Number of dry ashpits	•••	0,040
Number of dust bins	• • •	73,861
		80,501

Progress of Conversion of Privies and Provision of Additional Water Closet Accommodation, 1922-1932.

Year	Dwellinghouses W.C's.	Factories and Workshops W.C's.	Other Premises W.C's.	Totals W.C's.
1922	1654	134	25	1813
1923	2124	131	20	2275
1924	1503	89	31	1623
1925	1598	97	25	1720
1926	1363	107	43	1513
1927	834	101	64	999
1928	432	115	32	579
1929	369	111	19	499
1930	289	87	28	404
1931	276	64	15	355
1932	332	103	20	455

The number of times each ashpit was emptied by the Cleansing Department during the year was on the average 9. The dust bins are emptied each week. During the year 11,237 dust bins have been provided and 7,222 ashpits abolished.

Three hundred and eleven plans have been approved by the Health Committee for the construction of works, as follows:—258 water closets affecting 297 dwelling-houses; 32 water closets affecting 20 licensed premises; 11 urinals affecting 11 licensed premises; 133 water closets affecting 88 factories and workships; 23 water closets and 1 urinal affecting schools, clubs, and other premises, and 33 reconstruction schemes affecting 150 dwelling-houses.

(D) Sanitary Inspection of District. The number of tests to drains and sanitary fittings made by the Sanitary Inspectors during the year was 4,201, of which 2,360 were volatile tests with 237 positive results, 1,781 were coloured water tests with 314 positive results, 110 smoke tests with 31 positive results. In 956 of the houses tested infectious disease was present, in 278 cases diphtheria with 21 positive results, in 31 enteric fever with 1 positive result, and in 547 other diseases with 18 positive results. In 9 cases the system of drainage was such as to render impracticable the application of a test.

The drainage of 17 blocks of property, comprising 149 houses, was dealt with under Section 41 of the Public Health Act, 1875, as against 132 houses last year. The defects were found as the result of

tests applied to the drains. All these were dealt with by the City Surveyor after being referred to him by the Health Committee, and where necessary notices were served by this department for private drainage work.

The District Sanitary Inspectors have made 57,404 inspections and visits for the investigation and suppression of nuisances. The total number of nuisances reported was 8,496. The statement on the following pages shows the nature and the amount of work performed by the Inspectors during the year, together with the figures for the five preceding years for comparison.

During the year 978 complaints as to nuisance were received, as against 1,141 the previous year. The number of statutory notices served for the abatement of nuisances was 1,724, as against 1,750 last year. The number of notices served for the abolition of ashpits was 5,261, and the number of notices served for the provision of dust bins was 4,971. The houses affected by the ashpit notices were 11,230 and the houses affected by dust bin notices were 10,931. The number of preliminary notices served for dangerous places to be made secure was 8, as against 37 the previous year. There were 50 of these places dealt with, as against 54 last year. Fifteen cases were heard at the City Court for failing to obey notices issued from this department, seven of which were each fined 5/-, and eight were withdrawn, the work having been done either before the hearing of the case or during the time of adjournment. Costs amounting to £1 12s. 0d. were inflicted in the eight cases.

#### Particulars of Work Done, 1927-1932.

#### Routine Visits and Inspections-

	1927	1928	1929	1930	1931	1932
No. of Houses inspected under Public Health Acts No. of Houses in respect of which notices	4410	5147	5082	5757	1464	11537
were served requiring defects to be remedied	1349	1197	1172	1459	1360	8496
(a) By owners (b) By L.A. on default		1183		1417 14	1328 12	4167 17
No. of ordinary visits	13240	22342	23146	24137	30215	38693
No. of Houses rendered fit without service of formal notices	1290	947	556	720	526	1195

Inspections and Visits—						
No. of complaints investigated No. of ordinary visits and inspections	1620	1625	1586	1767	1735	1916
No. of ordinary visits and inspections (other than dwelling-houses)	_	_			_	4884
(other than dwelling-houses) No. of Factories and Workshops visits	1100	1112	1050	1000	1000	
No of Offensive Trade Premises visits	1182	1115	1276	1328	1626	2584
and inspections	186	273	355	396	653	662
No. of Schools inspected No. of Gravevards inspected	$\frac{750}{121}$	719 150	$\frac{832}{46}$	812 51	$\frac{708}{36}$	$\frac{522}{36}$
No. of visits to Common Lodging Houses	050					
(Day) (Night)	956 8	$\frac{1137}{7}$	$\frac{1200}{10}$	694	$\frac{678}{17}$	$\frac{424}{38}$
No. of Houses let in lodgings visited	$\frac{-}{72}$	_	_		_	10
No. of Canal Boats Inspected No. or Cinema visits	180	$\frac{112}{181}$	$\frac{80}{174}$	$\frac{31}{159}$	$\begin{array}{c} 65 \\ 109 \end{array}$	$\frac{43}{100}$
No. of Piggeries visited	_	_	_	_	268	272
Drainage and Sanitary Arrangements-						
Chalzed during alamand	1135	904	614	862	743	607
Drains amended	651	592	643	734	600	630
Extra drains provided	$\frac{604}{170}$	$\frac{410}{124}$	$\frac{387}{130}$	$\frac{510}{178}$	$\frac{281}{104}$	$\frac{270}{145}$
Cellars drained	49	28	41	27	27	39
Drains underneath houses abolished	16	7	15	40	9	25
Open drain inlets trapped	$\frac{16}{6}$	5	$\frac{8}{23}$	$\frac{22}{28}$	11 11	$\frac{13}{19}$
Waste pipes trapped	30	21	47	87	22	õõ
Waste pipes disconnected	$\begin{array}{c} 67 \\ 196 \end{array}$	$\frac{42}{133}$	$\begin{array}{c} 59 \\ 130 \end{array}$	$\frac{109}{210}$	$\frac{30}{115}$	57 134
Rainwater conductors repaired or renewed	1278	1128	1001	1181	879	1030
Sinks repaired or renewed New sinks provided	64	101	144	138	170	437
New sinks provided	56	55	84	137	100	196
No, of Houses reported for provision of Water Closets	470	385	108	67	186	106
No. of Houses reported for provision of Privies	23	3	_	2	_	1
Water closet pedestals renewed	92	138	264	153	144	$15\hat{3}$
Water closets and flushing apparatus	246	287	532	297	292	300
repaired Water closets cleansed	78	78	45	19	34	49
Water closet apartments cleansed and	518	487	410	413	161	203
W.C. apartments properly lighted and	310	±01	410	419	101	200
ventilated General repairs to Water Closets	$\frac{3}{331}$	$\frac{5}{430}$	15	12	18	12
Additional W.C. accommodation provided	143	$\frac{450}{200}$	$\frac{811}{175}$	$\frac{462}{127}$	$\frac{454}{144}$	$\frac{504}{48}$
Soil pipes repaired or renewed	23	23	37	34	27	38
Indoor soil pipes abolished Privy apartments cleansed and limewashed	44	$\frac{4}{29}$	$\frac{1}{22}$	20	$\frac{3}{6}$	1
Privy structures abolished	88	57	55	46	56	132
Deposits of alone in achints mechilited	-8	$\frac{5}{20}$	$\frac{45}{1611}$	$\begin{array}{c} 18 \\ 6502 \end{array}$	7608	$\frac{9}{7222}$
Ashpits abolished  Dust bins repaired or renewed  Houses provided with new dust bins  Urinals cleansed, amended, or screened	621	662	570	829	1102	589
Houses provided with new dust bins	1947	2277	7574	9732	12049	11237
Urmals cleansed, amended, or screened Urmals remodelled	9	$\frac{11}{2}$	$\frac{9}{5}$	18 5	11 4	6
Urinals remodelled` New Urinals provided	4	5	3	1	5	5
Dwelling-houses, etc.—						
Dampness excluded	190	224	127	298	237	746
Roofs repaired	$\frac{341}{216}$	$\frac{343}{158}$	$\frac{168}{132}$	$\frac{334}{129}$	$\frac{279}{148}$	$\frac{662}{142}$
Verminous houses dealt with	_	_	_	_		14
Ventilation improved	433	$\frac{418}{652}$	$\frac{352}{357}$	$\frac{542}{752}$	$\frac{453}{641}$	1124 1244
Window cords repaired or renewed Lighting improved	$\frac{629}{121}$	129	357 97	102	117	221
General repairs executed	4158	4401	3938	$\frac{4923}{784}$	5217	7310
Kitchen ranges repaired or renewed	925	792	609	101	842	790

Washing coppers provided or renewed Handrails provided	36 7 1 28 3 49 29 8	31 10 4 26 11 45 33 11	28 12 8 61 69 61 47 4	39 23 19 73 17 47 28 26	47 16 22 21 27 35 22 6	67 18- 30 58 17 110 49 25
Courts, Back-yards, Stable-yards, etc.—  Yard and passage paving repaired Yards re-paved Yards and passages newly paved Yards cleansed Passages cleansed and limewashed Manure pits repaired Manure pits provided	1927 208 — 15 113 311 5	1928 147 2 5 80 360 1	1929 163 3 4 92 226 3 —	1930 236 13 4 78 176 3	1931 215 11 8 57 47 4 2	1932 585 27 20 27 331 6
Keeping of Animals, etc.—  Improper keeping of swine prohibited Piggeries repaired New Piggeries provided Piggeries abolished or disused Improper keeping of fowls, etc., prohibited Accumulations of offensive matter, etc., removed	3 — — 25	7 — — 19	4 — — — 18 92		8 — — 17 52	10 26 7 22 16
Accumulations of manure removed  Infectious Diseases— No. of Zymotic Diseases investigated  Factories and Workshops—	51 16903	23068	33 10793	6320	19 5177	28 3559
Ventilation improved Lighting improved:—  (a) Day  (b) Night	46 ————————————————————————————————————	27 ————————————————————————————————————	10     37 3	29 — — — — — 56 1	11    41 5	30 2 12. 131 20 57 33 5. 60
Drain Testing—  Number of volatile tests						
Number of colour tests  Number of smoke tests (Rocket)  Positive Negative  Number of smoke tests (Rocket)  Positive Negative	222 767 233 1542 40 25	203 708 256 1233 17 15	293 1072 330 1458 16 15	271 1142 272 1351 19 24	199 891 236 1160 22 85	237 2123 314 1417 31 79
Miscellaneous Nuisances—  Dangerous places referred to City Engineer Dangerous places made secure Choked Street Gulleys reported	98 91 560	47 38 568	82 77 537	67 55 286	48 37 216	62 50 143
Wastes of Water reported Samples of Water taken for:— (a) Chemical Analysis (b) Bacteriological Examination Premises dealt with under Rats and Mice (D) Act, 1919 Offensive Trades Efflu	184 - 54 - 17	204  51  15	229 — 36 — 39	308 	132 — 27 20	320 144 14 2 13:

The number of visits made to Burial Grounds in the City was 36, as against 36 last year. No irregularities were observed. Under the terms of licenses issued from the Home Office the District Inspectors supervised the exhumation and reinterment of three bodies; one at Upper Chapel, Idle, one at Clayton Heights Wesleyan Chapel, and one at Bowling Cemetery.

During the year the Woman Sanitary Inspector has made 252 visits to the women's conveniences in the public streets, parks, cemeteries and recreation grounds, for the purpose of making inspection as to the condition of the conveniences set apart for the use of females, with the result that in 14 instances nuisances were found. These were notified verbally to the person in charge and abated.

#### (E) Workshop and Shop Inspection, etc.

# (1) FACTORIES, WORKSHOPS AND WORKPLACES.

### I.—Inspections (Including Inspections made by Sanitary Inspectors).

Premises	Number of					
Tiomsos	Inspections	Written Notices	Prosecutions			
FACTORIES (Including Factory Laundries)	494	44				
Workshops (Including Workshop Laundries)	2683	130				
Workplaces (Other than Outworkers' premises)	1236	73				
Totals	4413	247				

#### II.—Defects Found in Factories, Workshops, and Workplaces.

	Nui			
Particulars	Found	Remedied	Referred to H.M. Inspector	Prosecutions
Nuisances under the Public Health Acts:*				
Want of cleanliness	129	116		
Want of ventilation	11	10		
Overcrowding	1	1	•••	
Want of drainage to floors	21	20		•••
Other nuisances	402	364		
Sanitary insufficient	37	21		
accommodation unsuitable or defective	117	156		•••
not separate for sexes	14	14	•••	•••
Offences under the Factory and Workshop Act:—  Illegal occupation of underground bakehouse (S. 101)				
Other offences (excluding offences relating to outwork and offences under the sections mentioned in the schedule to the Ministry of Health (Factories and Workshops, Transfer of Powers				
Order; 1921)				
Totals	792	702		

<sup>\*</sup> Including those specified in Sections 2, 3, 7, and 8 of the Factory and Workshop Act, 1901, as remediable under the Public Health Acts.

#### III.—REGISTERED WORKSHOPS, ETC.

Workshops on the Register (S.131) at the end of the year								Number
Workshops				•••				1765
,, Bakehouses								370
Factory Bakehouses		• • •	•••	•••	•••	•••	•••	182
Restaurant Kitchens	•••	•••	•••	• • • •	•••	• • •	• • • •	144
			<b></b>	otal			1	2461

#### IV.—OTHER MATTERS.

Class	Number
Matters notified to H.M. Inspector of Factories:— Failing to affix Abstract of the Factory and Workshop Acts (S. 133),	
1901	19
Action taken in matters referred by H.M. (Notified by H.M. Inspectors as remediable under the Reports (of action taken)	17
Factory and Workshop Act (S. 5), 1901 sent to H.M. Inspector Other Reports to H.M. Inspectors	4
Underground Bakehouses (S. 101):—	•••
Workshop Bakehouses in use at the end of the year Factory Bakehouses in use at the end of the year	13 19
Homework—Secs. 107 to 110:— Employers failing to keep list of outworkers (form 44)	4
Notices served on employers for failing to keep or send in lists	334
List of outworkers not received	
Cases of outwork in infected and unwholesome premises  Outworkers visited	280
Prosecutions for failing to send in list of outworkers	
Limewashing and painting of Bakehouses (S. 99):—	
Occupiers requested to limewash or cleanse walls and ceilings of bakehouses	181

#### (2) SHOPS ACTS, 1912—1930.

Shops Inspected. The total number of shops on the Register is 7,739, and the number of visits and investigations made was 7,037. The number of shops visited in which young persons were employed was 705, and in 136 instances the employers had failed to exhibit the notice referring to the specific provisions of the Act. All the employers were cautioned, with one exception, and he was prosecuted.

In 74 shops no notice specifying the day of the weekly half-holiday was displayed, and the offenders were all cautioned. In 53 instances shops were found open and the occupiers selling non-exempted articles on the weekly half-holiday, and 16 persons were found hawking on the day fixed for the closing of shops. Fifteen of these offenders were

prosecuted, and the remainder cautioned. The occupiers of 293 shops were found not displaying the notices specifying the exempted trades for which they were remaining open after the closing hour of the weekly half-holiday, or at night, and they were all cautioned. In 313 cases employers had failed to provide the prescribed form relating to their assistants' weekly half-holiday; 6 of the offenders were prosecuted and the remainder cautioned. In 18 shops assistants were found employed after half-past one o'clock on their specified weekly half-holiday, 7 employers were prosecuted and the remainder cautioned. In 11 shops assistants were not being allowed correct intervals for meals; all the employers were cautioned. Five young persons were found to have been employed more than 74 hours in one week, and the employer was prosecuted. In one instance seats were not provided for female assistants as required by the Act, and the employer was cautioned.

Closing Orders. During night visits and observations after the closing hours affecting certain classes of shops, 2 shops were found open after the prescribed closing hour, and the shop-keepers were cautioned. In 83 shops official copies of Closing Orders, etc., were not displayed. All these offenders were cautioned.

Shops (Hours of Closing) Act 1928. As a result of night inspections 13 shop-keepers and 2 hawkers were found carrying on business after the closing hour. Three offenders were prosecuted and the remainder cautioned.

Section 72. P.H.A. 1925. Offences relating to food storage in shops referred to Food Inspectors. 44.

# ADMINISTRATION OF THE SHOPS ACTS, 1912-1930.

# Summary of Inspections and Offences.

#### Inspections.

Number of shops on register	7,739
Number of shops visited where assistants are employed	1,953
Number of shops visited where young persons are employed	705
Total number of inspections	7,037

#### OFFENCES.

			Prosecutions			
Nature of Offence	No. of	No. of	No. of	Fines	Costs	
	Cases	Warnings	Cases	£ s. d.	£ s. d.	
G1 + 4 + 1012						
Shops Act, 1912— Abstract relating to young						
persons not displayed	136	135	1	0 5 0		
Prescribed form relating to						
half holiday of assistants not	0.7.0	0.0				
displayed Young persons employed more	313	307	6	3 15 0		
than 74 hours per week	5		5	5 0 0	1 0 0	
Young persons employed in			Ŭ			
shop after being employed in				:		
factory for permitted hours  Correct meal times not allowed						
to assistants	11	11				
Half holiday not allowed to						
assistants	18	11	7	4 15 0	0 12 6	
Seats not provided for female assistants	1	1				
Notice of day of weekly half	1	1				
holiday not fixed	74	74		Ţ.		
Shop open after closing hour	~0	40		0.10		
on weekly half holiday Hawking on weekly half holi-	53	42	11	3 10 0		
day after hour fixed by Order	16	12	4	1 5 0		
Shop open after closing hour			_			
fixed by Closing Order	2	2				
Hawking after hour fixed by Closing Order						
Official copy of Closing Order						
not displayed in shop	83	83				
Notices not displayed in mixed	202	200				
shops after closing hour Shops (Hours of Closing) Act,	293	293				
1928—						
Shop open after closing hour	13	10	3	7 0 0		
Hawking after closing hour	2	2				
Hairdressers' and Barbers' Shops (Sunday Closing) Act, 1930—						
Hairdresser carrying on busi-						
ness on Sunday						
Totals	1020	893	37	£25 10 0	<i>f</i> 1 12 6	
		000		12-2-20	12	

# (3) RAG FLOCK ACT, 1911-1928.

During the year 27 samples of rag flock were submitted to the City Analyst, and they were all found to comply with the standard of cleanliness laid down in the Regulations under the Act.

#### (F) Premises, Etc., Controlled by Bye-laws or Regulations.

#### (1) COMMON LODGING HOUSES.

At the end of the year there were 17 registered common lodging houses in the city, comprising 101 sleeping rooms, and affording nightly accommodation for 859 males, 22 females, and 24 couples.

The total number of persons accommodated during the year was 166,327, as against 185,716 the previous year. The nightly average was 456, representing  $49\cdot0$  per cent. of the accommodation available. This shows a decrease of  $10\cdot3$  per cent. on the previous year.

The following table shows the number of nights spent by single men, women, young persons, and couples in common lodging houses during the year:—

ADULTS			8 to 2	l years	Under 8 years	
Males	Females	Couples	Males	Females	Males	Females
151732	4825	4587	-	_	372	219

The whole of the houses have been limewashed and cleansed in accordance with the Public Health Act, 1875.

Five applications for transfer of Registry as keepers were granted and an additional house has been registered during the year.

The total number of inspections made during the year was 424, 38 of which were night visits, and it was found unnecessary to make any serious complaint in any case. There have been no cases of infectious disease reported during the year in any Common Lodging House. No difficulties have been experienced in gaining admittance and it has not been necessary to resort to Police Court proceedings.

# (2) CANAL BOATS.

The number of boats inspected within the city boundary during the year was 43. The structural and sanitary conditions of all these were satisfactory. The defects for which notices were outstanding at the end of the previous year were remedied during the year under review.

### (3) OFFENSIVE TRADES, Etc.

The number of offensive trades within the city is 347, of which 296 are fish friers. Two hundred and fifty-one of the fish friers and one other trade are subject to annual license. The number of visits of inspection made to offensive trades other than fish friers was 662.

#### (4) SCHOOLS.

The number of visits made for the sanitary inspection of schools was 522, as against 708 last year. Minor defects have been noted and remedied at various schools.

# (5) INSPECTION OF CINEMAS AND OTHER PLACES OF PUBLIC ENTERTAINMENT.

The periodical inspection of these places was carried out as usual by the District Sanitary Inspectors, and 100 recorded inspections have been made during the year. Minor defects which were observed were remedied on the attention of the management being called thereto. A number of visits were made during the year in regard to the exclusion of children from cinemas owing to the prevalence of zymotic disease, but no breaches of the law were observed.

# G. Other Sanitary Work.

#### SMOKE ABATEMENT.

During the year the number of observations (each of half-hour duration or longer) made by the Smoke Inspector for the emission of smoke, etc., was 1,039, and .104 inspections were made of the boiler plants concerned.

Fifty-eight chimneys were found to be discharging black smoke for more than a total of three minutes in the half hour. The firms concerned were notified in writing immediately following the observation and notices to abate the nuisance were served in each case. The average discharge of black smoke in these cases was 4·2 minutes in thirty.

The causes of smoke were carefully investigated in the 58 cases subject to preliminary notices and are summarised as follows:—

 	26
 	12
 •••	5
 • • •	5
 	4
 	3
 	3

In 53 cases (91.3 per cent.) the excessive smoke was due to some form of negligence in the boiler management and only in five cases was it necessary to make additional alterations to the plant.

Court proceedings were instituted in four cases with the results as shown:—

Summary of Prosecutions taken under the Public Health (Smoke Abatement) Act, 1926.

Black smoke dis- charged mins. in 30.	Particulars of Boiler Plant	Method of stoking	Causation of smoke	Penand		
51/2	Two Lancashire Boilers	Hand	Spread firing (excessive , cooling)	£	s. 0	d. θ
5	Five Lancashire Boilers	Machine	Insufficient draught apparatus	0	4	0
6	One Lancashire Boilers	Hand	Boiler neglect; firemen engaged on other duties	0	4	0
5	Two Lancashire Boilers	Machine	Insufficient Boilers at work	0	4	0
			Total	£1 ]	12	0

The results of these proceedings cannot be considered entirely satisfactory.

The City Analyst has examined monthly throughout the year the contents of two atmospheric deposit gauges situated in:—

- (1) A northern residential district, two miles from the centre of the City;
- (2) the centre of the City;

being respectively known as North and Central, and the following is a summarisation of the City Analyst's Report:—

Tons per Square Mile.

Station	Period	Total Solids	Tar	Carbon	Ash	Sul- phuric Acid	Chlor- ine	Am- monia
North	January	10.41	0.53	5.60	4.28	1.40	1.61	0.11
Central	January	32.83	1.64	12.26	18.93	3.07	1.36	0.17
North	February	6.06	0.46	2.29	3.31	0.56	0.63	0.04
Central	February	17.19	0.84	6.81	9.54	3.80	2.10	0.38
	March	15.45	0.61	6.17	8.67	0.78	1.68	0.14
Central	March	71.50	3.18	32.14	36.18	5.22	2.21	0.38
North	April	9.78	0.61	4.12	5.05	1.42	1.24	0.12
Central	April	46.46	1.40	22.70	22.36	5.87	2.97	0.28
North	3.0	13.98	0.36	5.96	7.06	3.67	1.21	0.21
Central	May	35.21	1.36	13.87	19.98	4.97	2.03	0.21
North	June	4.82	1.36	1.14	2.32	0.98	0.21	0.00
Central	June	18.02	1.78	6.37	9.87	1.75	0.56	0.14
North	July	9.27	0.46	4.92	3.89	2.06	1.28	0.18
Central	July	21.20	1.26	8.21	11.73	3.97	2.09	0.24
North	August	4.99	0.43	2.36	$2 \cdot 20$	0.56	0.46	0.04
Central	August	16.35	2.58	4.44	9.33	2.06	0.66	0.07
North	September	8.06	0.36	2.53	4.17	1.88	1.32	0.14
Central	September	28.43	2.93	9.08	16.42	2.21	1.92	0.24
North	October	11.05	0.71	3.42	6.92	0.78	$2 \cdot 24$	0.21
Central	October	34.86	1.61	15.72	17.53	4.61	2.72	0.38
North	November	12.52	0.82	3.00	8.70	0.66	1.78	0.11
Central	November	37.90	1.22	20.78	15.90	2.40	3.10	0.49
North	December	10.99	0.57	6.95	3.47	2.35	1.25	0.11
Central	December	38.21	1.40	15.43	21.38	3.56	3.49	0.42
North		117:38	7.28	48.46	60.04	17.10	14.91	1.41
Central		398.16	21.20	167.81	209.15	43.49	25.21	3.40
Total (Nort	th and Central)	515.54	28.48	216.27	269.19	60.59	40.12	4.81
Means		257.77	14.24	108.13	134.59	30.29	20.06	$2\cdot 40$

#### III.-FOOD.

#### (A) MILK SUPPLY.

Report by W. Halstead, M.R.C.V.S., D.V.S.M. (Vict.), Veterinary Inspector.

There is an average dairy cow population in Bradford of 4,268 animals, housed in 275 dairy farms. The amount of milk produced by these cows is estimated at 9,603 gallons per day, whilst about 8,000 gallons come into the city by train or road; the total amount of milk consumed in the city being about 17,603 gallons daily, representing 0.44 pints per head of the population for all purposes.

The dairy herds were regularly inspected during the year, 510 visits being made to the dairy farms in the city. Thirteen cases of Tuberculosis were observed amongst the cattle, 7 of which were affected with Tuberculosis of the Udder. These 7 cows were members of 7 herds, with a total daily milk production of 373 gallons. The remaining 6 animals were affected with Tuberculosis in various other forms. The number of samples taken for bacteriological examination was 261, of which 154 were for biological tests.

Tuberculosis Order, 1925. The above mentioned 13 animals were slaughtered under the provisions of this Order; on post-mortem examination 3 showed the disease as not advanced; whilst in the remaining 10 the lesions were those of advanced Tuberculosis. The amount of compensation paid to the owners was £59 5s. 0d., and the nett salvage received for the disposal of the carcases, etc., was £19 13s. 6d.

Contagious Abortion. During the routine inspection of dairy cows, definite clinical evidence of contagious abortion was noted in 5 herds. The estimated quantity of milk produced on these farms was 112 gallons daily. No cases of Undulant Fever attributable to the consumption of milk from these herds were reported.

Milk and Dairies Consolidation Act, 1915.

Biological Examination of Milk for Tuberculosis. Five hundred and fifty-nine samples were taken; 307 sources were outside and 252 inside the city. Eight samples from outside sources were reported as positive for B. Tuberculosis. On 3 farms the affected animals were found and slaughtered, whilst on the remaining farms the source of the contamination could not be traced. Eight samples from farms inside the city were also reported positive, and from 4 farms the affected animals were slaughtered. On the 4 remaining farms the source of the contamination could not be traced.

The Milk (Special Designations) Order, 1923. There is one herd in the city producing under this Order about 40 gallons of Grade "A" Tuberculin Tested milk per day, and 11 herds producing 1,144 gallons of Grade "A" milk per day.

#### SUMMARY.

SUMMARY.				
Number of city dairy farms				275
Average dairy cow population				4268
Number of visits to city farms				510
Cows affected with:—				
(1) Tuberculosis of the Udder:				
Slaughtered (a) Not Advanced			3	
(b) Advanced		•••	4	
				7
(2) Clinical Tuberculosis (other forms	: (			
Slaughtered (a) Not Advanced	•••		2	
(b) Advanced			4	
			_	6
Bacteriological Examinations (Samples)				261
Submitted for Biological Tests (Samples)				154
Tuberculosis Order, 1925.				
			£,59	5 0
Nett Salvage received for carcases			£19	13 6

Milk and Dairies Order, 1926. There are 493 cowsheds within the city, and much improvement has been effected within recent years in their structure and equipment, and farmers now realise that the production of a consistently clean milk is, with care and method, comparatively easy.

#### SUMMARY OF DEFECTS REMEDIED

	Deminint	01 2	LIECI	. S ICEM	EDIED.		
				1929	1930	1931	1932
Floors				35	79	18	13
Light and	ventilatio	n.		23	55	16	5
Water sup	oply			8	_	_	
Drainage				5	14	2	3
Manure p	its			3	3	4	
Milk-room	s provide	d.		39	62	33	19
Milk-room	s altered			_	19	2	3
General re	epairs			6	18	4	13
Rooms add	led for ster	ilizatio	าก				
purposes	s			_	6	4	5

Total number of visits to farms was 734.

There were at the end of the year 366 vendors of milk registered and residing within the city. These may be classified as follows:—

Cowkeepers and retailers	 150
Retailers only (in street or from their homes)	
Milkshops (including dairies, confectioners, small	 216
grocers and other shops)	
Shops where milk is sold in sealed bottles only	 689

The number of visits made to these premises was 1,131, and generally the premises were found to be in a satisfactory state. During the year 30 milk purveyors provided new dairies for themselves, and 10 others made material improvements in their existing arrangements.

In addition to these 366 vendors residing within the city, 78 dairymen came into the city from surrounding districts to sell milk by retail.

The milk supply produced within the city is supplemented from 290 sources outside the boundary. From these sources the milk arrives in Bradford in 60 cases by rail, 1 by tramways, and 229 by road.

During the year 26 new milk purveyors were registered, in addition to 80 shopkeepers who were registered to sell milk in sealed bottles only.

Eleven persons have been granted a dealer's licence to sell Certified milk, and 48 to sell Grade "A" milk.

Proceedings were instituted in 3 cases for various infringements of the Milk and Dairies Acts and Order. Penalties amounting to fifteen shillings were imposed.

Chemical Examination of Milk. Nine hundred and thirty-seven samples were analysed, and the results are shown in tabulated form on the following page. These show that 5.01% of the samples gave an analysis under 3.0% of fat, and 66.87% over 3.5% of fat; whilst 1.06% of these samples gave an analysis under 8.5% of non-fatty solids. The total either below 3.0% of fat or 8.5% of non-fatty solids was 55, or 5.9% of the samples.

Bacteriological Examination of Milk. Reference to the Report of the City Bacteriologist will give the number of the samples examined and further details.

There were 819 samples of milk submitted for bacterial counts. Of these samples 432 were obtained from sources outside the city and 387 from inside. In 347 samples or  $42\cdot36\%$ , B. Coli was absent in 1 c.c.; in 194 samples or  $23\cdot68\%$ , B. Coli was absent in  $0\cdot1$  c.c.; in 154 samples or  $18\cdot8\%$ , B. Coli was absent in  $0\cdot01$  c.c.; in 74 samples or  $9\cdot03\%$ , B. Coli was absent in  $0\cdot001$  c.c.; and in 50 samples or  $6\cdot10\%$ , B. Coli was present in  $0\cdot001$  c.c.

Municipal Milk Depot. During the year the Municipal Milk Depot was discontinued as a means of supplying milk to Child Welfare and Tuberculosis cases and arrangements were made for the supply of bottled Grade "A" milk to these cases.

Up to 31st August the depot supplied milk as follows:—
Tuberculosis Dispensary ... ... 2,072 gallons
Maternity and Child Welfare Scheme ... ... 22,726 gallons
Other Institutions and Persons ... ... 2,152 gallons

After the 31st August to the end of the year 28,030 gallons of milk were distributed under the new scheme to Maternity and Child Welfare cases, and 2,688 gallons to Tuberculous cases, which gives a total of 50,756 gallons, and 4,760 gallons for the whole year for Maternity and Child Welfare cases and Tuberculous cases respectively.

# (B) THE FOOD AND DRUGS ADULTERATION ACT 1928, AND THE PUBLIC HEALTH (PRESERVATIVES ETC. IN FOOD) REGULATIONS.

The number of samples of food and drugs taken under these Acts and submitted to the Public Analyst for analysis by the sampling officer was 1,346. Of these 1,269 were certified as genuine, and 77 as adulterated or doubtful. In 3 adulteration cases proceedings were taken against the vendors. The total penalties and costs amounted to £10 5s. 0d.

The adulterations in the remaining cases were small, and the vendors were cautioned by letter.

RESULTS OF MILK ANALYSIS, 1932.

	Per Cent	Under 77.66
	Total	
	4.6 & over	
	4.5	
	4.4	
	4.3	
	4.2	3 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
	4.1	
	4.0	
	3.9	
	3.8	
	3.7	
Fat	3.6	
	3.5	
	3.4	
	3.3	
	3.5	
	3.1	
	3.0	
	5.9	
	5.8	1
	2.7	
	2.6	
	2.5	
	Under 2.5	0.1
Non-Fatty Solids	Per cent.	Under 7-5-6-7-6-7-6-7-6-7-6-7-6-7-6-7-6-7-6-7-

Table Showing Number of Samples Procured and Examined During 1932.

	1	Statutor	. Sample	Informa	I Sample				
	Number			Informal Sample					
Nature of Sample	Sub- mitted	Genuine	Adult- erated	Genuine	Adult-   erated				
	Initted	Genume		Genume					
Bacon	1			1					
w	10			10	_				
	7	6	1	_	—				
m 10 .	1	_		1	_				
	3	_	1	3	1				
TO 1 100 1	$\begin{array}{c c} & 2 \\ 1 & 1 \end{array}$	1 —	1	1	1				
m !! ! a .	$\begin{bmatrix} \cdot \cdot \\ \cdot \cdot \end{bmatrix} = \begin{bmatrix} 1 \\ 2 \end{bmatrix}$			$\frac{1}{2}$					
TO 111 1 TO 11	ī			l ĩ					
73	38	_		38					
01	11	_		11					
	1	_	_	1	<u> </u>				
	6	_	_	6	i —				
	6	_	— ·	6	_				
	$\begin{array}{c c} \cdot \cdot & 1 \\ \cdot \cdot \cdot & 2 \end{array}$	_		$\frac{1}{2}$					
0 701				1 2					
CIDI	l			1					
	13	5		8					
C (7D) 1)	7		2	3	2				
Cream (Artificial)	1	_	_	1					
	1	_		1	—				
	1	<u> </u>	_	1	i —				
TO TATE	1	<u> </u>	—	1	_				
	11	-	_	11					
P: i n. '.	$\begin{vmatrix} \cdot \cdot \end{vmatrix} = \frac{2}{2}$	_	_	2					
O' YYY' TO	2			$\frac{2}{2}$					
6 11 6	$\begin{bmatrix} \cdot \cdot \\ \cdot \cdot \end{bmatrix} = \begin{bmatrix} 2 \\ 2 \end{bmatrix}$			$\frac{1}{2}$					
C 1 11 1			_	ĺ į̃					
TY	5	_	_	5					
1. 6	4	_	_	4					
	24	2	2	17	3				
	1	<u> </u>	—	1					
T 3	1	l —	_	1					
T C1	9 3	_	—	9 3					
T T ' (NT +1)	,			1					
Tomorada	1 1		_	î					
T C 1	2	_	_	2	_				
I T 1 C / 1	$\begin{bmatrix} \ddots \\ 2 \end{bmatrix}$	_	_	$\frac{1}{2}$					
Marcaroni	1	_	_	1					
	27	_	_	27	_				
3 7 7 1 1	3			3	10				
3.7:11 (70)	941	679	44	206	12				
Minaganant	11			11					
Mandand	1			1					
0-41	i		_	î					
Pepper	2	_		2					
Pickles	1	_	_	1	_				
Potted Meat	3		_	3					
1 D: (C 1)	2	_	_	$\begin{bmatrix} 2\\2 \end{bmatrix}$	_				
Rice (Ground)	2	_	_	2	_				
Rice (Flaked)	$\frac{1}{2}$	_		1	_				
Complement Course 1	2			$\frac{2}{1}$					
Cassa-	1 0			6					
C	21	1	1	18	1				
Totals (carried forward)	1,219	693	51	457	18				

Table Showing Number of Samples Procured and Examined During 1932.

	Number Sub-	Statutory Sample		Informal Sample	
Nature of Sample			Adult-		Adult-
	mitted	Genuine	erated	Genuine	erated
Totals (brought forward)	1,219	693	51	457	18
Self-Raising Flour	4			4	
Sugar	1			ī	
Sugar of Milk	1		_	1	
St. Ivel Bondon	1			1	_
Sweets	2			2	
Tapioca Table Cream	1 1			1	
Tea	9			9	
Tinned Vegetables	3			3	
Tinned Fruit	4		_	4	
Tinned Fish	2	_	_	2	_
Toffees	l		_	1	_
Tomato Catsup	1			1	
Tripe Udder	$\frac{3}{1}$			$\frac{3}{1}$	
X7'	1			1 1	
Vinegar Vinegar (Malt)	6			6	
Whisky	3	1		2	
Wine	2		_	2	
Almond Oil	1			1	
Alum	1	_	_	1	_
Ammoniated Tincture of Quinine	3	_		3	
Bicarbonate of Soda	$\frac{3}{2}$	_		$\frac{3}{2}$	
Bismuthated Magnesia Boracic Acid	3			3	
Boracic Ointment	i			ì	
Borax	$\overline{4}$	1		3	_
Camphorated Oil	2		_	$\frac{2}{2}$	
Castor Oil	2				_
Citric Acid	1		_	1	
Cod Liver Oil	4			4	_
Compound Glycerine of Thymol Compound Liquorice Powder	1			i	
Compound Syrup of Figs	i			î	
Cream of Tartar	$\frac{1}{2}$			$\hat{2}$	_
Epsom Salts	2	_		2	
Eucalyptus Oil	1	_		1	
Glycerine	3	-		3	-
Glycerine, Lemon and Honey	4		1	2	1
Glycerine, Lemon and Ipecacuana	$\frac{1}{3}$			$\frac{1}{3}$	
Ground Ginger Health Salts	1 3			1	
Hydrogen Peroxide	i			î	_
Iodine (Solution)	6	1	1	2	2
Olive Oil	4	-		4	
Olive Oil and Raspberry Vinegar	2		_	2	
Paregoric	1		-	1	_
Sol Volatile	3			3 1	
Seidlitz Powders Sulphur (Flowers)	$\frac{1}{3}$			3	
Sulphur (Flowers) Sulphur (Tablets)	i			l	_
Sulphur Salts	i			1	_
Sulphur and Yeast Tablets	1	_	_	1	_
Soap Liniment	1	_	_	1	-
Sweet Spirit of Nitre	4	_	1	$\frac{2}{2}$	1
Tartaric Acid	$\frac{2}{2}$		_	$\frac{2}{2}$	
Zinc Ointment	2				
Totals	1,346	696	54	573	23
10000111	1 -,0 10			1	11

# (C) SLAUGHTERHOUSES AND MEAT INSPECTION.

The number of private slaughterhouses within the city is 33 and 1 knacker's yard. Eight of these, and also the knacker's yard, are subject to annual licence, and 25 are registered slaughterhouses. The number of visits made to private slaughterhouses was 1,885, and to butchers' shops and potted meat and sausage-makers' premises 2,628. There were no seizures of diseased or unsound meat during the year.

The total number of animals slaughtered in Bradford was as follows:—

Beasts		 	*Public Abattoir 14,951	Private Slaughterhouses. 6,310
Sheep and	Lambs	 	51,091	22,789
Calves		 	5,438	241
Pigs		 	30,462	7,837
			101,942	37,177
	Total		139 119	

Total ...... 139,119

The number of carcases and offals totally condemned were as follows:—

Whole Carcases and Offal Condemned, 1932.

	Bulls	Cows	Bullocks	Heifers	Calves	Sheep	Pigs
Decomposition (general)	-	1				30	6
Dropsy (general)		_	7	_	_	11	5
Emaciation (general pathological)		3		2	4	28	42
Erysipelas (acute swine)		_	_	_		_	22
Fever (acute)		9		_	10	4	41
Immaturity		_			12	_	
Jaundice	_	1		_	3	_	13
Parasitic Conditions			_		_	8	_
Pyæmia	_	3			5	3	1
Septicæmia	_	15	_	1	3		3
Tuberculosis	1	120	3	8	7		99
Miscellaneous	1	3		2	3	8	4
Totals	2	155	3	13	47	92	236

<sup>\*</sup> These numbers have been obtained from the Markets Superintendent.

The condemnations of partial carcases and organs are shown in the following table:—

Partial Carcases and Organs Condemned, 1932.

	Partial Carcase	Lungs	Heart	Stomach and Intestine	Liver	Kidney	Udder	Head
Abscess   Beasts   Sheep   Calves   Pigs	1 	4			- - -		1	1 - 1
Fibro- Beasts Sheep Calves Pigs					$\frac{2}{-\frac{2}{96}}$			
Inflam- Beasts matory Sheep Condi- tions Calves Pigs		16 1 1 19	3 - 11	4 - 6	7 — 5	<u>6</u> 	9 - 1	
Parasi-   Beasts   Sheep   Conditions   Pigs	1 1 —	$\begin{bmatrix} \frac{6}{-} \\ \frac{2}{2} \end{bmatrix}$	_ _ _	1 - -	$ \begin{array}{c c}  & 20 \\  & 112 \\  \hline  & 26 \end{array} $	=		
Tuber- culosis   Beasts   Sheep   Calves   Pigs	4 - -	383 266	20 - 266	48 — 115	106 — 166		18 - 2	41 — 366
Miscel- laneous Sheep Calves Pigs	7 4 1 4	4 - 1			2 _ 1	3 = =		

The incidence of tuberculosis in beasts and pigs is shown in the following table:—

			В	easts	]	Pigs
			No.	Per- centage	No.	Per- centage
Generalised Tuberculosis Localised Tuberculosis		 	139 402	0.65 1.89	99 624	0·25 1·62
Tota	als	 	541	2.54	723	1.87

The total weight of meat in lbs. found to be unsound or unwholesome was as follows:—Beef, 107,435; Mutton, 11,921; Pork, 46,339; Veal, 2,723; a total of 168,418 lbs., or upwards of 75 tons. In addition to which the following miscellaneous foodstuffs were destroyed:— Chilled and Frozen Beef, 234 lbs.; Frozen Ox Kidney, 92 lbs.; Hams, 146 lbs.; Tinned Hams, 176 lbs.; Imported Udder, 130 lbs.; Shredded Suet, 35 lbs.

# (D) OTHER ARTICLES OF FOOD,

Daily inspections of produce have been made during the year in the St. James' Wholesale Market and of fish in the wholesale fish warehouses. Regular inspections have been made in the retail markets in Rawson Place, James Street and John Street. Fifty-nine visits have been made to the fish curing and crab boiling premises in the city. These have been found to be in a satisfactory condition and the fish treated to be of good quality.

The following produce was found to be unfit for food and destroyed after being surrendered by the owners:—

					Tons.	Cwts.	Qrs.	Lbs.
Wet fish						19	1	11
Dry fish						10	1	21
Shellfish					5	8	1	13
Game and Po	ultry					14	4	9
Rabbits	•••					6	2	2
Cabbage					6	3	0	24
Lettuce	,				$^2$	2	0	17
Cauliflowers					4	14	2	15
Sprouts					3	6	2	18
Potatoes					28	14	2	0
Carrots					16	10	0	4
Turnips			• • •		1	2	1	16
Beetroot							4	14
Radishes			•••			12	3	16
Legumes					5	6	0	3
Onions						4	2	13
Hard Fruits					2	9	3	18
Soft Fruits			•••			11	3	22
Stoned Fruits						3	3	6
Tomatoes						10	1	1
Watercress							2	4
Frozen Eggs	•••	•••		•••			1	0
			Total		80	14	2	23

Shell Fish. The number of samples submitted to the City Bateriologist was 137, and the results of his examinations are out below:—

27.4			Results	
Nature of	Source of Supply		Doubt-	
Sample		Clean	ful	Bad
Mussels	Dalbeatie	5	2	$\frac{}{2}$
,,	To the state of th	7		ĩ
,,	Park Gate, Cheshire	$\frac{1}{2}$	1	4
<i>''</i>	Bagilt	ī		
**	Canesthorn	i		
	King's Lynn	$\hat{5}$	1	1
.,	Dumfries		î	_
	Heysham	1	_	1
	Killorglin, Ireland	4	3	9
,,	Lake Coragh, Ireland	$\tilde{2}$	2	_
	O'Meath, Ireland	$1\overline{2}$	1	3
L C 11	Cark-in-Cartmel	9	1	_
,,	Bolton-le-Sands	4	2	1
	Silverdale	11	3	_
,,	Flookburgh	17	2	2
	Isle of Bara	2	_	_
1	King's Lynn	2	1	_
,,	. Oban	2	_	_
,,	Lytham	_	_	1
Oysters	American Blue Point	3	_	_
,,	Whitstable Natives	1	_	_
,,	Dutch Natives	1	_	
	Totals	92	20	25

Watercress and Lettuce. Thirty-two samples of watercress and eleven samples of lettuce were submitted for bacteriological examination. The results in relation to B. Coli and B. Welchi are set out below:—

	Wate	ercress	Lettuce			
	B. Coli.	B. Welchi.	B. Coli.	B. Welchi.		
Absent from 1 gm Present in 1 gm. and absent from	1	20	_	4		
0·1 gm	12	12	5	6		
Present in 0·1 gm. and absent from 0·01 gm Present in 0·01 gm. and absent	14	_	4	1		
from 0.001 gm Present in 0.001 gm. and absent	3	_	2	-		
from 0.0001 gm						
Present in 0.001 gm	1	_	_			

Ice Cream. Inspection of ice cream makers' premises and utensils disclosed no serious cause for complaint, although in only a very few cases is adequate provision made for the efficient sterilisation of utensils.

One hundred and twenty-seven samples of ice cream were submitted to the City Bacteriologist and his reports are summarised in the table:—

Abstract of the Results of the Bacteriological Examination of Ice Cream.

	Number of Colonies on Agar at 37° C. per									
Coliform Bacilli	Sam- ples	under 50,000	under 100,000			under 1,000000		over 2,000000		
Absent in 1 cc	62	41	2	3	6	4		6		
Present in 1 cc. and absent in 0·1 cc	17	8		1	1		2	5		
Present in 0·1 cc. and absent in 0·01 cc	14	8	_		1	1		4		
Present in 0.01 cc. and absent in 0.001 cc	9	3	2		1	1	_	2		
Present in 0.001 cc. and absent in 0.0001 cc	14	4	1	I	3	2		3		
Present in 0.0001 cc.	11	_		1	1	1	1	7		
Totals	127	64	5	6	13	9	3	27		

Fish Friers' Premises. At the end of the year there were 297 fish friers' businesses within the city. Forty-five of these are not subject to the consent of the Corporation. The number of businesses transferred was 44.

Twenty-three applications for the consent of the Corporation to establish new businesses were considered by the Health Committee and in no case was such consent granted.

Four applications to transfer businesses to other premises were considered, and three of these were granted.

# (E) BAKEHOUSES, Etc.

The number of Bakehouses in use at the end of the year was 552, of which 357 were Workshop Bakehouses, 13 of these being Underground, and 163 Factory Bakehouses, 19 being Underground.

Of the Factory Bakehouses 9 may be termed large wholesale bakers. The number of inspections made of Bakehouses was 1,731. Limewashing and Painting of Bakehouses (Sec. 99).

Occupiers requested to limewash walls and ceiling	gs	147	
Occupiers requested to cleanse walls and ceilings		8	
Occupiers requested to paint walls and ceilings		26	
			181
New sinks provided		6	
Fume pipes to ovens provided or repaired		11	
Defective plaster repaired or renewed		19	
Bakehouse floors repaired or renewed		5	
Miscellaneous defects	•••	23	
			64
Restaurant and Café Kitchens.			
Restaurant una Caje Michens.			
No. in use at the end of the year	144		
No. of inspections made of Restaurants, etc	408		
Limewashing or cleansing of walls and ceilings		28	
Painting and papering of walls and ceilings		8	
New sinks provided and fixed		6	
Defective plaster repaired or renewed		8	
Miscellaneous defects		14	
The second secon	1		64
E 1.C.			
Food Stores.			
Inspections of shops used as Food Stores	119		
Limewashing or papering of walls and ceilings		20	
Food stores used as sleeping places		6	
Floors cleansed or repaired	•••	9	
Shop fittings cleansed		9	
Miscellancous defects		19	
mischaneous derets			63
			30

# Fertilizers and Feeding Stuffs Act, 1926.

Pea Meal        -       Basic Slag        1         Bran        1       Sulphate of Ammonia        2         Malt Culms        -       Sulphate of Potash        2	Feeding Stuff
India Meal	Bran Malt Culms India Meal Compound Cakes Meat and Bone Meal Fish Meal Chicken Foods Soya Meal Ground Oats

The analysis of the samples of Feeding Stuffs showed that their contents differed from the particulars set out in the statutory statement.

The remainder of the samples were in accordance with the provisions of the Act.

Merchandise Marks Act, 1926. Under the above Act, Imported Goods Orders have been made relating to the following foodstuffs:—Honey and Fresh Apples, Raw Totatoes, Currants, Sultanas and Raisins, Eggs in Shell and Dried Eggs, Oat Products, Malt Products, Frozen or Chilled Salmon and Sea Trout, and Butter.

Each Order requires that the foodstuff to which it relates shall bear an indication of origin on exposure for sale. The above foods from foreign countries to be marked "Foreign," or if imported from the Dominions to be marked "Empire." In either case, however, goods may, at the option of the vendor, be marked with a definite indication of the country of origin, e.g., "Danish," "Produce of Canada," etc.

During the year compliance with the requirements of the above Orders has been generally good, though the small retailers are slow in appreciating the significance of the Orders.

Legal proceedings were taken against four retailers in respect to Imported Tomatoes, Apples and Chilled Salmon. A conviction was recorded in each case. The total penalties amounted to £8.

#### IV.—PREVALENCE AND CONTROL OF DISEASE.

# (A) INFECTIOUS DISEASES,

The total deaths in Bradford from enteric fever, smallpox, measles, scarlet fever, whooping cough, diphtheria, and diarrhœa and enteritis under 2 years, known for convenience as Zymotic diseases, in 1932 was 79, giving a mortality rate for this group of 0.26 per 1,000.

Average Quinquennial Zymotic Death-Rates from 1886.

1886-90	2.3	1906-10	 1.3	1926-30	 0.46
1891-95	$2 \cdot 3$	1911-15	 1.2	1931	 0.24
1896-1900	2.0	1916-20	 0.4	1932	 0.26
1901-1905	1.7	1921-25	 0.5		

The Zymotic death-rate for the first quarter was 0.28, for the second 0.35, for the third 0.23, and for the fourth 0.22.

The diseases to be notified in Bradford are smallpox, chicken pox, cholera, plague, diphtheria, membranous croup, erysipelas, scarlet fever, measles and German measles, whooping cough, ophthalmia neonatorum, infective enteritis, acute poliomyelitis, cerebro-spinal fever, tuberculosis, acute polio-encephalitis, encephalitis lethargica, pemphigus neonatorum, pneumonia and influenzal pneumonia, malaria, dysentery, and the fevers known by any of the following names, typhus, typhoid, enteric, relapsing, continued or puerperal.

Diphtheria. Cases, 321; Deaths, 15; Fatality, per cent., 4.7.

# MORTALITY RATE PER 1,000 IN PREVIOUS YEARS.

	1923	1924	1925	1926	1927	1928	1929	1930	1931	1932
Bradford England and Wales						0.06				

The number of cases of Diphtheria in 1932 was higher than that for 1931, and the fatality rate was also higher. The sickness rate per 1,000 was 1.08. The cases were fairly evenly distributed throughout the city, the greatest number occurring in the North Bierley West Ward, where 42 cases were notified, and in the Allerton, Manningham and West Wards, where 39, 34 and 25 cases occurred respectively.

#### CASES OF DIPHTHERIA MONTH BY MONTH.

	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Number of Cases	34	44	31	36	17	23	25	9	24	21	26	31

The greatest incidence of the disease fell on children over three years of age, and the highest death-rate on those at three years.

# CASES AND DEATHS ACCORDING TO AGE.

	Under 1 yr.	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-15	15-20	Over 20	Total
Cases	12	20	15	29	33	26	22	20	20	19	54	11	40	321
Deaths . Fatality	1	1	1	4	l	_	2	1	1		2	_	1	15
per cent.		5.0	6.7	13.8	3.0	-	9.1	5.0	5.0		3.7	_	2.5	4.7

The number of cases removed to hospital was 292, or 91.0 per cent. of the cases.

Supplies of diphtheria anti-toxin for the use of practitioners in the city are kept at the Fever Hospital and at the Health Department. All patients admitted to the City Fever Hospital suffering from diphtheria receive a therapeutic dose of anti-toxin. The Schick test is not employed in the city.

Enteric Fever. Cases notified, 48; Deaths, 0; Fatality per cent., 0.0.

# MORTALITY RATES PER 1,000 IN PREVIOUS YEARS.

	1923	1924	1925	1926	1927	1928	1929	1930	1931	1932
Bradford England and Wales				0·01 0·01						

The monthly incidence of the disease is shown as follows:-

# Cases of Enteric Fever Month by Month.

	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Number of Cases		4	1	3	5	3	2	2	9	10	6	3

The sickness rate in Bradford was 0.16 per 1,000 of the population.

The number of cases removed to hospital was 35.

Scarlet Fever. Cases, 781; Deaths, 6; Fatality per cent., 0.77.

# MORTALITY RATE PER 1,000 IN PREVIOUS YEARS.

	1923	1924	1925	1926	1927	1928	1929	1930	1931	1932
Bradford England and Wales	0·02 0·03						$0.05 \\ 0.02$			

The number of cases of Scarlet Fever notified in 1932 was 139 less than in 1931. The sickness rate per 1,000 was 2.64. The greatest number of cases occurred in the Great Horton Ward where 82 cases were notified, and in Bolton, Allerton and Manningham Wards, where 77, 73 and 54 cases occurred respectively.

# Cases of Scarlet Fever Month by Month.

	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Number of Cases	60	55	67	70	66	64	54	25	38	78	96	1(8

The cases and deaths classified according to age are seen in the following Table:—

# CASES AND DEATHS ACCORDING TO AGE.

		Under l year	l-5 years	5-15 years	15-25 years	25-45 years	45-65 years	Over 65 years	Total
Cases	•••	14	266	4.6	54	30	1		781
Deaths	•••	_	3	3			_	_	6
Fatality per cent.		_	1·1	0.7	- 1	-	-	_	0.8

The number of cases removed to hospital was 636, or 81.4 per cent. of the cases. The Dick test is not employed in the city.

Small-pox. No case of Small-pox occurred in the city in 1932.

The following Table gives the vaccination returns in Bradford since 1915.

# VACCINATION STATISTICS.

Year	1 Births	2 Vaccin- ated	3 Insus- ceptible	4 Dead	5 Con. Objector	6 Post- poned	7 Removed	8 Un- accounted	Percentage not Vaccinated including Columns 5, 6, 7, 8
1915	4,249	1,559	6	365	1,720	136	322	141	54.6
1916	4,028	1,337	6	355	1,767	103	278	182	57.7
1917	3,262	1,068	18	287	1,418	66	251	154	57.9
1918	3,221	885	7	288	1,367	92	310	272	63.4
1919	3,310	953	5	258	1,551	93	284	166	63.3
1920	5,208	1,363	9	<b>37</b> 0	2,609	109	444	304	66.6
1921	4,878	1,230	5	360	2,583	130	263	350	68.2
1922	4,415	1,231	6	277	2,413	91	231	166	65.7
1923	4,447	1,495	14	257	2,182	103	249	147	60.3
1924	4,172	1,336	14	274	1,855	129	376	188	61.1
1925	4,095	1,184	15	265	1,968	101	310	252	64.2
1926	3,892	1,325	32	271	1,727	76	244	108	55.9
1927	3,584	1,228	16	223	1,700	61	231	125	59.1
1928	3,707	1,147	12	208 -	1,930	32	243	135	63.1
*1929	4,495	1,119	35	233	2,599	67	240	202	69.1
1930	4,479	1,070	8	246	2,676	.55	255	169	70.4
1931	4,168	947	19	240	2,510	46	266	140	71.1

\*The figures for that part of Bradford included in the old North Bierley Union are not available for those years prior to 1929.

Diarrhaa. Deaths, 52; Mortality per 1,000, 0.18.

The number of deaths from diarrhoea has now greatly diminished, and the rate continues low.

48

# DEATHS IN EACH WARD FROM DIARRHŒAL DISEASES IN 1932.

337		rtified Infective			Certifie Infective			Deaths nœal Di	
Ward	Under 2 yrs.	Others	Total	Under 2 yrs.	Others	Total	Under 2 yrs.	Others	Total
Allerton	_			1	2	3	1	2	3
Bolton	_	_	_	1	1	2	1	1	2
Bradford Moor	1		1	-	2	2	1	2	3
Clayton	_	_	-	2	_	2	2	_	2
East	_	_	_	4	_	4	4		4
East Bowling	-	_	-	<b>—</b>	1	1	_	1	1
Eccleshill		_		3		3	3		3
Exchange	_	_	_	-	_	_		-	_
Great Horton			_	1	4	5	1	4	5
Heaton		-		2	1	3	2	1	3
Idle	_	_	_	_		_	_	_	
Listerhills			_	1	2	3	1	2	3
Little Horton		_	_	-			-	_	_
Manningham	_	-	_	1	3	4	1	3	4
North	1		1	3	1	4	4	1	5
North Bierley East		1	1	_	3	3	_	4	4
North Bierley West		_	_	1		1	1	_	1
South	1	-	1	1	4	5	2	4	6
Thornton	_	-	_		-	_			_
Tong		-	_		1	1	-	1	1
West	_	-	-	_	1	1	-	1	1
West Bowling				1		1	1		1
City	3	1	4	22	26	48	25	27	52

Twenty-five, or 48·1 per cent. of the total deaths, occurred under one year of age.

# DEATHS AT VARIOUS AGE PERIODS.

	Ŋ	Ionth		Total under One Year				Years			
Age Periods	0-3	3-6	6-12	0-1	1-2	2-5	5-15	15-25	25-45	45-65	65 and over
Deaths	13	5	7	25		1		2	3	8	13

#### DEATHS OCCURRING MONTH BY MONTH.

Ī		Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
-	Number of Deaths		4	3	2	8	6	5	8	1	5	6	1	52

The number of notifications of cases of zymotic enteritis received in 1932 was 56.

Puerperal Fever and Puerperal Pyrexia. Cases, 67; Deaths, 9; Fatality per cent., 13·4.

# RECORD OF PREVIOUS YEARS.

	1923	1924	1925	1926	1927	1928	1929	1930	1931	1932
Cases	30	20	22	27	74	77	103	75	99	67
Deaths	9	4	4	10	12	10	7	15	8	9
Fatality per cent.	30.0	20.0	18.2	37.0	16.2	13.0	6.8	20.0	8.1	13.4
Number of live births each death	588	1252	1207	471	360	442	621	291	510	447

Measles and German Measles. Cases notified, 2,868; Deaths, 14; Mortality per 1,000, 0.05.

 $Whooping\ Cough.$  Cases notified, 1,855; Deaths, 19; Mortality per 1,000, 0.06.

Erysipelas. Cases, 130; Deaths, 8; Fatality per cent., 6.2.

# RECORD OF PREVIOUS YEARS.

	1923	1924	1925	1926	1927	1928	1929	1930	1931	1932
Cases	. 206	159	136	142	152	175	179	157	141	130
Deaths	. 23	6	9	10	15	9	17	8	10	8
Fatality per cent	11.2	3.8	6.6	7.0	9.8	5.2	9.5	5.1	7.1	6.2

Influenza. Deaths, 106; Mortality rate per 1,000, 0.36.

# RECORD OF PREVIOUS YEARS.

	1923	1924	1925	1926	1927	1928	1929	1930	1931	1932
Deaths	113	159	96	43	152	48	268	34	124	106

Anthrax. Cases, 1; Death, 0; Fatality per cent., 0.0.

	1923	1924	1925	1926	1927	1928	1929	1930	1931	1932
Cases	2	6	8	5	4	5		3	1	1
Deaths	1	2	:	_	_	1	-	1	_	_ [
Fatality per cent.	50.0	33.3	0.0	0.0	0.0	20.0		33.3	0.0	0.0

# (B) TUBERCULOSIS.

The number of deaths from all forms of tuberculosis in 1932 was 277, giving a mortality rate of 0.93 per 1,000.

#### RECORD OF PREVIOUS YEARS.

	1923	1924	1925	1926	1927	1928	1929	1930	1931	1932
Deaths	 297	311	284	292	292	288	292	265	281	277

# MORTALITY RATE PER 1,000 IN PREVIOUS YEARS.

Bradford	1.02	1.05	0.98	1.01	1.00	1.00	1.01	0.89		0.93
England & Wales	1.03	1.06	1.04	0.96	0.97	0.93	0.96	0.90	0.90	·

During the past thirty years there has been a progressive reduction in the death-rate from all forms of tuberculosis; this is well seen in the following Table, which shows the average mortality rate per 1,000 for the five-yearly periods; 1901-1905 being 98 per cent. above that of last year.

# AVERAGE MORTALITY RATE PER 1,000 FROM TUBERCULOSIS IN BRADFORD FOR PERIODS OF FIVE YEARS FROM 1901.

Periods	1901- 1905	1906- 1910	1911- 1915	1916- 1920	1921- 1925	1926- 1930	1931	1932
Pulmonary	1.31	. 1.19	1.19	1.16	0.84	0.81	0.79	0.75
Other Forms	0.53	0.46	0.34	0.30	0.21	0.17	0.14	0.18
All Forms	1.84	1.65	1.53	1.46	1.05	0.98	0.93	0.93

Public Health Act, 1925, Section 62. No action was taken under this section during the year.

New Cases and Mortality during 1932.

		NEW	CASES			DE	ATHS	
Age Periods	Pulm	onary	Non-Pu	lmonary	Pulm	onary	Non-Pu	lmonary
	М.	F.	М.	F.	М.	F.	М.	F.
0 to 1	_	_	2	1	_		4	2
1 to 5	1	3	6	5		1	7	3
5 to 10	5	4	21	17	_	_	2	1
10 to 15	6	7	13	11	_	2	5	2
15 to 20	17	16	3	4	7	7	_	3
20 to 25	15	24	5	9	12	19	4	2
25 to 35	38	33	3	9	23	31	5	1 .
35 to 45	42	10	4	1	21	18	_	3
45 to 55	39	13	2	3	<b>3</b> 3	7	1	3
55 to 65	17	12	1	1	17	9	1	1
65 and upwards	9	1	_	- 1	14	2	2	2
Totals	189	123	60	61	127	96	31	23

Of the deaths occurring from all forms of tuberculosis in 1932 21 per cent. were not notified.

(a) Pulmonary Tuberculosis. Deaths, 223; Mortality rate per 1,000, 0.75.

# RECORD OF PREVIOUS YEARS.

	1923	1924	1925	1926	1927	1928	1929	1930	1931	1932
Deaths	234	261	236	242	233	237	243	226	237	223

# MORTALITY RATE PER 1,000 IN PREVIOUS YEARS.

	1923	1924	1925	1926	1927	1928	1929	1930	1931	1932
Bradford	0.80	0.88	0.81	0.84	0.80	0.82	0.84	0.76	0.79	0.75
England & Wales	0.80	0.80	0.83	0.77	0.79	0.76	0.79	0.74	0.74	

Considering the deaths in relation to sex the death-rate from pulmonary tuberculosis was in 1932 among males 0.92 per 1,000, and among females 0.61 per 1,000. The chart on page 55 shows the male and female death-rates from pulmonary tuberculosis for the past twenty-five years in Bradford and shows that the difference in the rates in the two sexes is maintained. The very low rate among females as compared with that among males is to some extent characteristic of Bradford figures, and is at the moment a phenomenon rather difficult to account for.

Of the deaths occurring in 1932, 12 per cent. were not notified. The notifications received numbered 364, of which 312 were notified for the first time. This is a decrease in primary notifications over the previous year.

(B) Other Forms of Tuberculosis. Deaths, 54; Mortality rate per 1,000, 0.18.

#### RECORD OF PREVIOUS YEARS.

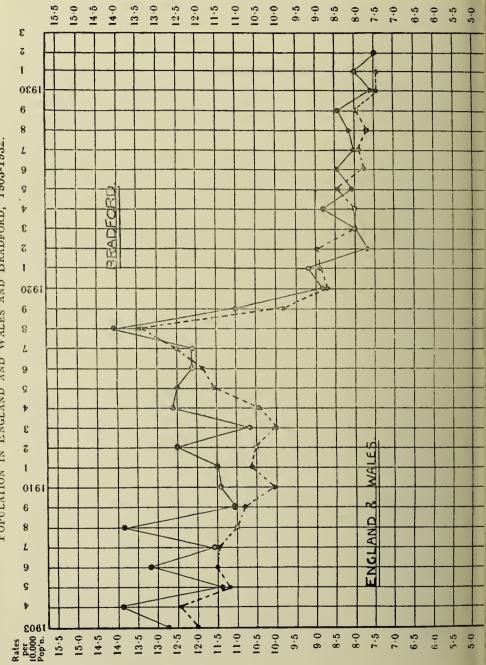
	1923 1924	1925	1926	1927	1928	1929	1930	1931	1932
Deaths	63 50	48	50	59	51	49	39	44	54

# MORTALITY RATE PER 1,000 IN PREVIOUS YEARS.

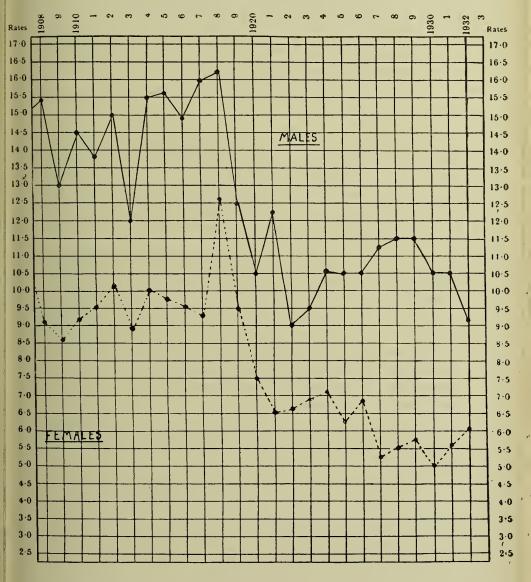
	1923	1924	1925	1926	1927	1928	1929	1930	1931	1932
Bradford England & Wales			$0.17 \\ 0.21$							

During the past twenty years there has been a marked fall in the death-rate from non-pulmonary tuberculosis, the rate for last year being only 34 per cent. of that of the average for the years 1901-1905. The fall may be associated with several causes, all of which have, no doubt, had an effect in bringing about this result. These may be shortly stated as follows:—(a) The improvement in the nutrition in infancy and child-hood; (b) the increased purity of the milk supply and its greater freedom from tuberculous infection; and (c) the lessened incidence of tuberculosis amongst women referred to above. The number of cases notified during the year of other forms of tuberculosis was 121. This is an increase of 4 notifications over that of the previous year.

DEATH-RATES FROM PULMONARY TUBERCULOSIS PER 10,000 OF THE POPULATION IN ENGLAND AND WALES AND BRADFORD, 1903-1932.



DEATH-RATES FROM PULMONARY TUBERCULOSIS PER 10,000 OF THE POPULATION IN BRADFORD ACCORDING TO SEX.



#### ANTI-TUBERCULOSIS CENTRE.

Report by H. VALLOW, M.D., D.P.H., Tuberculosis Officer.

The Anti-Tuberculosis Centre is open for consultation on six sessions per week, one being a general evening session and one a session set apart specially for children.

The number of attendances at the Anti-Tuberculosis Centre during the year was  $4{,}002$ ; of these, 428 were new cases and 280 contacts.

The diagnosis arrived at in these cases is seen in the following tables:—

		ults		dren		tal
New Cases:—	Male	Female	Male	Female	Male	Female
(a) Definitely Tuberculous	102	64	27	23	129	87
(b) Diagnosis not completed	8	3	1	8	9	11
(c) Non-Tuberculous	94	64	13	21	107	85
Total	204	131	41	52	245	183
	Ad	ults	Chil	dren	То	tal
	Male	Female	Male	Female	Male	Female
CONTACTS:		20	10			
(a) Definitely Tuberculous	21	$\frac{20}{2}$	10	7	31	27
(b) Diagnosis not completed		$\frac{2}{2}$	2	1	2	3
(c) Non-Tuberculous	60	58	49	50	109	108
Total	81	80	61	58	142	138

The number of cases transferred from other areas and cases returned after discharge in previous years was 15; and the number transferred to other areas, cases not desiring further assistance under the scheme, and cases "lost sight of," was 95.

The number of cases written off the Dispensary Register as recovered, diagnosis not confirmed, or non-tuberculous, is given in the following table:—

	Adults Male   Female			dren   Female	Total Male   Fema	
(a) Recovered:— Pulmonary Cases Non-Pulmonary Cases	9 6	9 4	5 6	4 5	14 12	13 9
(b) Diagnosis not confirmed or non- tuberculous	1 =0	129	65	74	224	2 3
Totals	174	142	76	83	250	225

The number of persons on the Dispensary Register on December 31st, 1932, is shown in the following table:—

	Pulmonary				No	Non-Pulmonary				Total			
	Adults		Children		Adults		Children		Adults		Children		
	М.	F.	M.	F.	М.	F.	М.	F.	M.	F.	М.	F.	
(a) Definitely tuberculous (b) Diagnosis not completed	455	402	111	95	50	50	197	146	505 8	452 5	308	241	

The health visitors have paid 3,971 visits to the homes, for Dispensary purposes.

Three thousand, three hundred and forty-seven specimens of sputum have been examined and 402 X-ray examinations made in connection with Dispensary work.

The number of persons on the Dispensary Register on January 1st, was 1,522, and on December 31st, 1,531, of which 837 were "T.B. plus" cases.

# Residential Treatment.

Patients have been sent to the Sanatoria and Hospitals as required, and the following return shows the extent of this residential treatment. Institutions:—Grassington Sanatorium, Bierley Hall Hospital, and St. Luke's Hospital (Tuberculosis Section).

			In Institutions on Jan. 1		Discharged during the year	Died in the Institutions	In Institutions on Dec. 31
Number of doubtfully	Adults	М.	5	23	25		3
tuberculous	Adı	F.	2	29	29	* -	2
admitted	Chile	lren	4	21	19	_	6
observation	Tota	1	11	73	73	_	11
Number of definitely	Adults	м.	85	267	205	63	84
tuberculous patients	Ad	F.	74	182	171	32	53
admitted for	Chile	lren	38	103	95	7	39
treatment	Tota	1	197	552	471	102	176
Grand Tota	l		208	625	544	102	187

The following table shows the results of observation of doubtfully tuberculous cases discharged from Residential Institutions during the year 1932.

Diagnosis on		For Pulmonary Tuberculosis					For Non-Pulmonary Tuberculosis						Totals		
discharge from observation  Stay under 4 weeks		ks	Stay over 4 weeks			Stay under 4 weeks			Stay over 4 weeks						
	М.	F.	Ch.	М.	F.	Ch.	M.	F.	Ch.	M.	F.	Ch.	М.	F.	Ch.
Tuberculous Non-tuberculous Doubtful	2	1 2 2		5 12 2	3 13 5	_	=	1 1 1		1 1	=	11 2 1	7 15 3	5 16 8	11 2 6
Totals	4	5	2	19	21	-		3	3	2	-	14	25	29	19

The following table shows the immediate results of treatment of definitely tuberculous patients discharged from Residential Institutions during the year 1932.

.5	ion		Duration of Residential Treatment in the Institution															
accificat	on admission to the Institution	Condition at time of discharge		Under 3 3-6 months		ıs	6-12 months			ore the			Total	s	Grand Totals			
			М.	F.	Ch.	м.	F.	Ch.	М.	F.	Ch.	М.	F.	Ch.	М.	F.	Ch.	
l s	Class T.B. Minus	Quiescent Not Quiescent Died in Institution	6 —	1 8 —	1 2 —	3 6 —	5 _ _	1 —	4 6 —	1 —	_ _ _	_ 1 _	_ _ _		9 19 —	7 8 —	2 2 —	18 29 —
Tuberculosis	Class T.B.plus Group 1	Quiescent Not Quiescent Died in Institution	4		_ _ _	3 1 —		_ _ _	5 —	2 —	_ _ _	1 —	 	 _ _	4 10 —	2 3 —	_	6 13 —
Pulmonary	Class T.B.plus Group 2	Quiescent  Not Quiescent  Died in Institution	16 —	27 —	_ _ _	16 —	5 —	_ _ _	14 —	3 10 —	1	- 8 -	10 —	_ 	 54 	3 52 —		3 106 —
Ā	Class T.B. plus Groun 3	Quiescent Not Quiescent Died in Institution	65 49	44 22	4 2	17 8	14 6	_ 1 _	1 3 4	11 2	1 2		_ _ 1		1 87 62	- 69 31	6 4	1 162 97
losis	Bones and Joints	Quiescent Not Quiescent Died in Institution	6 1	5	2		1 1	3		<u> </u>	_ 1 _	_	_ 	_ 2 _	6	- 8 1	8	
ry Tuberculosis	Abdom- inal	Quiescent Not Quiescent Died in Institution	_ 4 _	3	- 3 -	_ 1 _	1	_ 2 _		1 —	_	_	_	_	5 	2 3 —	5	2 13 —
Non-Pulmonary	Other Organs	Quiescent Not Quiescent Died in Institution	- 8 -	8	— 11 3	_ 1 _	_	2 3 —	_	_	6 13 —	_	_	1 5 —	9	- 8 -	9 32 3	9 49 3
Nor	Periph. eral Glands	Quiescent Not Quiescent Died in Institution	_ 1 _	- 6 -	2 9 -	=		6 5 -	_	_	5 2 -	=	_ _ _	2 - -	_ 1 -		15 16 —	15 23 —

Special treatments such as deflation of the lung have been given either at the Dispensary or in the homes in selected cases. X-ray control has been used whenever practicable.

A large number of preventive inoculations for colds have been given, and tuberculin injections for certain special conditions have been administered.

Sanocrysin has been tried in suitable cases and injections of calcium. No definite opinion of their value has yet been formed.

Some glandular cases have been treated by aspiration and injections with modifying fluids. Successful results have been obtained.

Chronic skin conditions have been treated by Ellis's electrolytic copper method. In some cases definite improvement has been obtained. In one case of glandular tuberculosis this method has proved to be valuable.

#### GRASSINGTON SANATORIUM.

W. M. CUMMING, M.D., Ph.D., D.P.H., MEDICAL SUPERINTENDENT.

The beds are used for those cases of pulmonary and non-pulmonary forms of Tuberculosis in which there is reasonable prospect of cure or considerable improvement.

# Admissions and Discharges, 1932.

			Adults		Chile	dren	Total	
			м.	F.	м.	F.	М.	F.
Remaining 31/12/31		 • • • •	46	38	18	11	64	49
Admitted	•••	 	93	77	46	31	139	108
Discharged		 	94	75	47	24	141	99
Died	•••	 	_	4	- 1	_		4
Remaining 31/12/32	•••	 •••	45	36	17	18	62	54

Of the adult cases discharged, 3 men and 8 women stayed under one month. The reasons for this short stay were: 2 men and 5 women took their discharge against medical advice, 2 women were transferred to St. Luke's Hospital and Skipton Isolation Hospital, and 1 man returned home for personal reasons. Amongst the adult males 74 had well-established pulmonary tuberculosis, the tubercle bacillus being found in 58, but not in 16, and 4 had other forms of tubercle; amongst the adult females 47 had well-established pulmonary tuberculosis, the tubercle bacillus being found in 40, but not in 7, while 7 had other forms of tubercle. Amongst the children, 25 boys and 9 girls had intrathoracic tubercle.

# Pulmonary Tuberculosis.

#### GAIN IN WEIGHT.

		Ad	Chil	dren		
	М.		F.			
	TPI	т.в	TRI	т В	М.	F.
	T.B.+		T.B.+	T.B	249	242
Average stay in days	233	207	345	91	243	243
Average age	34	33	28	35	9	8
Average gain in weight	8 7 16	$10^{-2}_{16}$	8 7/16	11 11	$9\frac{3}{16}$	$9\frac{3}{16}$

Of the male adults, 58 gained weight, 5 lost weight, and 11 were too ill to be weighed. Of the female adults, 27 gained weight, 7 lost weight, 10 were too ill to be weighed, and 3 died.

All the children except two boys who were too ill to be weighed gained in weight.

The capacity for work of the cases of pulmonary tuberculosis discharged in 1932 is shown below:—

	T.E	3.+	T.E	3.—	Total	
	М.	F.	М.	F.	М.	F.
Full Work	33	10	8	5	41	15
Light Work	7	11	6	_	13	11
Fit for Exercise	4	4		_	4	4
Unfit for Work	14	10	2	2	16	12
	58	35	16	7	74	42
Fit for Open Air School (children on adult ward)	_	2		_	_	2
Died in Institution	-	3	_	-	_	3

Other forms of Tuberculosis.			Male.	Female.
Average stay in days	•••	•••	77	199
Average age	•••		23	26
Average gain in weight		•••	8 10/16	13 2/16

In all, 399 specimens of sputa were examined either by the ordinary direct method, or after concentration, or both. In 15 instances tubercle bacilli were demonstrated in the sputum after concentration when results had been negative with the direct method. During 1932 the dentist visited the Sanatorium periodically, and extracted 166 teeth, filled 27 teeth, scaled 11 teeth, made 5 dentures, and carried out various minor operations.

The results of treatment of the children are shown on the following table:—

Result of Treat- ment of Children			Improved		No Material Improve- ment		Died		Total	
(1) Intrathoracic Tubercle (2) Other Forms (3) SuspectedCases Totals	6 10	Girls  3 5 - 8	Boys  18 3 2  23	6 7 1 14	Boys	Girls	Boys - - - -	Girls	Boys 25 14 2 41	9 12 1 22

All children who are fit were recommended on discharge to go to the Open-Air School, or their own School.

The table showing results of treatment in adults is given on the following page, and from this table it is clear that the great majority in all the A. sub-classes and I.B and II.B are likely to improve with sanatorium treatment. Of the cases in III.B, about 63 per cent. of them will benefit, but very few cases in any of the C. sub-classes are likely to improve.

# TABLE SHOWING RESULT OF TREATMENT.

	12301	Fi	13	22	7	47
	Total	Ĭ.	17 25 15	0 0	1 9	74
		표.				60
	Died	M.	111			
-	Improvement	ഥ	1	0,01	4	6
Total	IsirətsM oV	M.	63	- 4	0.0	13
, i	Improved	Œ.	100	5		31
	porozotal	Z	11 22 15	10	-	4 54
	†nesesinQ '	F	3 1			4
		Ŋ.	9			<u></u>
	Total	ഥ	2001	60		7
iii		Ξ.	70 ∞ H	-	-	-16
Cases with Tubercle Bacilli Absent	Died	ITI				
rcle		F.M.				
Tuber	No Material Improvement					2
th T		F. M	<u> </u>	63		10
s wi	Improved		6.7 H	' ' ,		
Sase		F. M.				E
	3π5085iuΩ	M.	07-1			က
-		표	4 1 1	0170	7	40
	Total	M.	21-4	G	9	58
acil		표			60	<u>භ</u>
le B	Died	M.	 			
Cases with Tubercle Bacilli in Sputum	Improvement	표		00	4	6:
Spr	IsirəteM oV	M.	22	4	ု မ	11
with	т	ഥ	4601	1 00	11.	26
ses	Improved	M.	8 15 14	10	"	43
Ca	amaasam &	표	63			2
	Quiescent	M.	4			4
	Stage		I A. 11 A. 111 A. 1 B.	II B.	11 C.	Total

NOTE ON CLASSIFICATION.—Pulmonary Tuberculosis cases in Adults are sub-divided into two classes:—(1) Tubercle Bacilli Present in the sputum; (2) Tubercle Bacilli absent. Each of these classes is further sub-divided according to the extent of the lesion in the lung and the severity of the symptoms. For the extent of the lesion a modified Turban-Gerhardt system is used, Stage 1 being a localised lesion involving if both lungs, not more than the extent of the lung above the clavicle in front, and above the spine of the scapula behind; whilst if only one lung is affected, a lesion extending not lower than the second rib in front and the spine of the scapula The letters A, B and C are used to denote severity of symptoms in each case. A denotes constitutional disturbance absent or slight; behind is indicated. Stage 2 indicates a slight Icsion up to one lobe, or a severe lesion of half a lobe. Stage 3 includes all other cases. B, intermediate between A and C; C, severe constitutional disturbance or deterioration. Constitutional disturbance is in each case estimated by degree of pyrexia, tachycardia, dyspnœa, malnutrition. Research.

# I.—By W. M. CUMMING (MEDICAL SUPERINTENDENT).

A. Pulmonary tuberculosis due to the bovine type of the bacillus. The search for cases of this condition, the earlier results of which were reported last year, has been continued on a much more ambitious scale and, up to date (30/3/33) and including unpublished material, 22 cases have been demonstrated in the laboratory of this institution. Of these, 7 are Bradford cases; the remainder are drawn from both urban and rural districts as widely scattered as Northumberland, Lancashire, Cheshire, Wales, London.

The conclusions so far arrived at may be briefly summarized as follows:—

- 1. Pulmonary tuberculosis due to the bovine type of the bacillus (hereafter called "bovine phthisis") is not the bacteriological curiosity that it was held to be ten years ago.
- 2. Clinically, radiologically and at autopsy, "bovine phthisis" is indistinguishable from the disease as caused by the commoner human type of the bacillus.
- 3. The outlook of the individual case of phthisis is at least as bad when the causal organism is of bovine origin as when it is of the human type.
- 4. "Bovine phthisis" in the general population is generally due to infection by the alimentary route, i.e., from the drinking of tuberculous milk.
- 5. There is considerable evidence (largely of a negative nature) suggesting that in those cases occurring in persons whose daily life brings them much in contact with cattle, e.g., farmers, milkers, their families, etc. ("cattle-contacts") the route of infection is generally respiratory, i.e., from the inhalation of droplets coughed out by cattle with a lung lesion, or of dust in the hides of the cattle.
- 6. Those working with tuberculous cattle run a very real risk of contracting from them tuberculosis in its most crippling and fatal form, viz., pulmonary tuberculosis. Of 18 cases of pulmonary tuberculosis occurring in "cow-contacts" in the north of England (including unpublished material) no less than 6 have recently been shown in this laboratory to be due to the bovine type of the bacillus. This finding has no parallel in current literature.

Several questions remain unanswered.

- 1. Why is the distribution geographically of bovine phthisis so patchy? The results obtained in this laboratory show that of 246 Bradford cases of pulmonary tuberculosis investigated, 7 are of bovine origin; of 167 Liverpool cases, only 1; of 110 Surrey cases, none; of 57 London cases (children only), 2. The vagaries of the laws of "inverse probability" may conceivably explain these differences; the quality of the milk supply in the various areas as determined by street sampling certainly will not.
- 2. (a) Does human-to-human infection with the bovine type of the bacillus occur? So far, no instance of this has been conclusively demonstrated. This becomes increasingly surprising. meagre evidence, no more than suggestive, that it may occur, does exist. There are, however, no grounds whatsoever for ignoring the possibility of its occurrence.
  - (b) Does human-to-bovine infection occur? Absolutely no evidence of this has so far been elicited. On the other hand, no evidence has been adduced to show that it cannot occur.
- 3. Is "bovine phthisis" on the increase? There is some suggestion that it is, but many years' work will be required to prove it.

The investigation is being continued.

References:

erences:
Cumming, W. M.—Brit. Med. Jour. 1932, ii., 317.
Cumming, W. M., Foster, W. M., and Girdwood, R. O.—Jour. Path.
and Bact. 1933. XXXVI., 153.
Cumming, W. M.—\*Tubercle 1933 XIV., 5, 205.
Same author—Ibid. 1933 XIV., 6, 259.
Same author—Brit. Jour. Tuberc. 1933, in preparation for the press.
\* Reprinted. Veter. Jour., 1933, Apl. In the Press.

The investigation instituted to determine whether the biological test for B. Tuberculosis can usefully be replaced by a cultural test has been discontinued temporarily in favour of the more important work outlined above. It would appear, however, that the amount of material, time and labour involved in a cultural test sufficiently extensive to be comparable with the biological, is prohibitive.

Cumming, W. M., and Foster, W. M.—Tubercle, 1932, XIII., 7, 289. Grateful acknowledgment must be made to Miss Mary Williamson for her help in the routine parts of these investigations, and to Mr. J. M. Wood for his assistance with the somewhat voluminous correspondence involved. Thanks are also due to the Medical Research Council who have borne the expenses of these investigations and to tuberculosis workers all over the country, who have supplied specimens and, frequently, clinical records.

# II.-By R. Porteous, Assistant Medical Officer.

- A. Latent and occult abdominal glandular tuberculosis. Through the kindness of Professor M. J. Stewart, of Leeds, it has been possible to make here a histological and bacteriological investigation of a series of abdominal glands from people dying of diseases other than tuberculosis and showing no tuberculous lesion at autopsy. This research is intended to be supplementary to an investigation carried out at Grassington a few years ago ("Latent and occult tuberculous infection of bronchial glands"; Cumming, W. M., Hartfall, S. J., and Thomson, J. G.—Jour. Path. and Bact., 1931, XXIV., 157). The investigation is not sufficiently advanced to allow of any conclusions being drawn, but the results promise to be instructive.
- B. A universal stretcher splint for non-operative treatment of hip, spine, and knee joint tuberculosis. Although most authorities are agreed on the fundamental principles of non-operative treatment of hip, spine and knee joint tuberculosis, there is no universal means of applying such treatment.

Some form of splint is necessary, and although there are a number of splints on the market they are mostly for children and none so far is of universal use for all cases; further, no standard design has been possible for adults as well as for children.

This problem has been tackled on engineering lines and a splint evolved which has decided advantages and can be standardised.

It embodies all the modern principles of local treatment, viz., immobilisation, traction, and abduction, yet permits easy transport of the patient by hand, trolley or ambulance for the equally important general treatment—open air, heliotherapy, X-rays, etc., and gives rapid and ready access to the patient for partial or full exposure, sponging, dressing of wounds, massage and bed service, with the minimum disturbance to the essential position of the patient necessary for local treatment.

Nine splints have been put into commission during the past three months. One is being used for correction of spinal curves following fixation of a spinal lesion, another for straightening a flexed thigh and knee-joint while still retaining essential abduction position of limb—a difficult problem. Further advances are contemplated.

Thanks are due to Arthur Dean and Lawrence Witty, engineer and joiner respectively in the institution, for their unstinted co-operation in the manufacture of the above splints.

# BIERLEY HALL HOSPITAL.

	Men.	Women.	Total.
Admissions	75	57	132
Discharges	43	46	89
Deaths	27	17	44
No. of patient days	8,651	7,454	16,105
Average No. of beds occupied	23.6	20.4	$44 \cdot 1$
Pulmonary cases	_		125
Non-Pulmonary cases			_
Observation cases	-		7

Of the 132 cases admitted during the year, four men, 2 women and 1 child were doubtfully tuberculous, and 71 men, 50 women and 4 children were definitely tuberculous. The total number of admissions showed an increase on that of the previous year, but the average stay in hospital was shorter; the average number of beds occupied and the total number of patient days were slightly lower.

Of the cases discharged during the year, 4 men and 2 women were doubtfully tuberculous, and 39 men, 40 women and 4 children were definitely tuberculous. In the tubercle bacilli negative group 21 persons were discharged, of these 13 were greatly improved and the disease rendered quiescent, and the other 8 improved. In the tubercle bacilli positive group 1, 3 persons were discharged, 1 quiescent, 2 improved but non-quiescent. In the tubercle bacilli positive group 2, 2 persons were discharged improved but non-quiescent. In the tubercle bacilli positive group 3, the most advanced type of cases, only one was discharged quiescent and 56 improved but with the disease not yet quiescent.

During the year, Dr. L. G. White, who had held the office of Medical Superintendent to the Hospital since June, 1919, resigned to take up duties in London.

# (C). VENEREAL DISEASES.

The Centre at the Municipal General Hospital is well equipped, and conveniently situated so as to serve the whole area. In the Municipal General Hospital itself beds are provided for indoor treatment of venereal disease in its various forms, and the provision made is adequate.

The number of new cases from the area of the City of Bradford and the attendances at the Venereal Diseases Centre since its opening are shown in the following table:—

	Year			ereal eases		enereal eases	Attendances		
			Males	Females	Males	Females	Males	Femáles	
1918			200	175	34	41	1,604	1,639	
1919			583	235	79	42	10,990	4,011	
1920			627	311	121	31	21,129	9,174	
1921		أ	457	184	144	29	28,676	11,390	
1922			403	164	126	31	23.162	7,863	
1923			359	134	110	44	21,398	7,565	
1924			315	123	103	50	17,390	5,615	
1925			248	142	143	42	13,294	4,859	
1926			374	119	43	29	20,095	4,957	
1927			312	115	99	53	20,116	5,369	
1928			344	122	141	83	20,972	5,253	
1929			308	145	156	116	17,955	4,654	
1930			311	145	165	110	19,215	6,230	
1931			236	97	127	73	16,738	4,333	
1932	•••		336	111	146	68	16,720	4,243	

	Males	Females
1. Number of persons dealt with at the Out-patient Clinic for		
the first time and found to be:—		
Suffering from Syphilis	73	84
Suffering from Soft Chancre	200	
Suffering from Gonorrhœa Not suffering from Venereal Disease	$\frac{263}{146}$	27 68
Not suffering from venereal Disease	140	00
Total	482	179
2. Number of persons discharged from the Out-patient Clinic		
after completion of treatment for:— Syphilis	22	29
Soft Chancre	1	_
Gonorrhœa	178	13
Total	201	42
9. 3T 1		
3. Number of persons who ceased to attend the Out-patient Clinic without completing treatment and who were suffering		
from:—		
Syphilis	55	82
Soft Chancre	_	
Gonorrhœa	77	7
Total	132	89
4. Total attendances of all persons at the Out-patient Clinic		
who were:		
Suffering from Syphilis	2,489	2,640
Suffering from Soft Chancre	5	7.245
Suffering from Gonorrhœa	13,382 844	$1,245 \\ 358$
Not found to be suffering from Venereal Disease	844	990
Total	16,720	4,243
5. Aggregate number of "In-patient days" of treatment given		
to persons suffering from:—	327	236
Syphilis Soft Chancre	321	
Gonorrhea	212	75
Not suffering from Venereal Disease	56	_
Total	<del></del>	311
6. Number of persons treated with Salvarsan Substitutes	142	157
o, transpor of persons treated with Salvarsan Substitutes		

# 7. Number of doses of Salvarsan Substitutes given:—

	<u> </u>			
Dose	Novarseno- billon	Silber Salvarsan	Sulpharsenol	Sulphostab
·05 grm. ·06 ,,	17	_		<u> </u>
·10 ,,	11	13	18	_
·15 ,,	225	68	$\frac{21}{21}$	23
·20 ,, ·24 ,,		77	11	7
·30 ,, ·36 ,,	300	40	3 2 2	84
·42 ,, ·45 ,,	658	_	2	161
·48 ,, ·60 ,,	583	=	=	<del>-</del>
Total	1,794	198	65	339

# Authorities responsible for patients:—

Area	New Cases	Number of Attendances at Out-patient Clinic	Aggregate	No. of doses of Salvarsan Substitutes used in Treatment Centre
Bradford	586	19,106	906	2,169
West Riding	75	1,857	_	227
Total	661	20,963	906	2,396

Number of out-patients remaining under treatment:-

					Bradford.	Wes	t Riding Area.
Male					338	•••	57
Female					236	•••	30
				Total	574		87
Number of p	ersons	s receiv	ving i	n-patie	nt treatme	nt :-	_
Male	•		•		25	•••	_
Female					18*	• • •	_
							<del></del>
				Total	43		_

Pathological Examinations made in the Laboratory during the twelve months ending on the 31st December, 1932:—

Nature of Test	For Treatment Centre	For Practitioners
	No. of Tests	No. of Tests
For detection of Spirochaetes	31	3 .
For detection of Gonococci	1065	792
For Wassermann reaction	633	3738
Kahn Tests	573	2183
Other examinations	_	102
Totals	2302	6818

The number of doses of salvarsan supplied free to medical practitioners in Bradford by the Local Authority during 1932 was 158.

The following tables showing figures for the past four years seem to show that the prevalence of venereal disease is somewhat diminishing.

#### Numbers.

	1929	1930	1931	1932
Ophthalmia neonatorum cases notified	34	40	27	15
Congenital syphilis deaths registered	6	2	1	1
Still Birth cases notified	183	195	201	173

# PROPORTIONS PER 1,000 BIRTHS.

	1929	1930	1931	1932
Ophthalmia neonatorum cases notified	7.8	9.1	6.6	3.7
Congenital syphilis deaths registered	1.38	0.46	0.25	0.25
Still Birth cases notified	42.1	44.6	50.5	43.0
lllegitimate Births registered	50.6	59.2	60.0	57.2

# (D) OTHER DISEASES.

Malignant Diseases. Deaths 485; Mortality rate per 1,000, 1.64.

#### RECORD OF PREVIOUS YEARS.

	1923	1924	1925	1926	1927	1928	1929	1930	1931	1932
Deaths	374	444	406	458	450	440	445	480	486	485

# MORTALITY RATES PER 1,000 FROM MALIGNANT DISEASES SINCE 1923.

	1923	1924	1925	1926	1927	1928	1929	1930	1931	1932
Bradford England and Wales									1·58 1·48	1.64

As will be seen in the following table, deaths from malignant disease showed an increase last year in the male but not in the female sex.

# Malignant Disease in Bradford according to Sex and Site. Crude Annual Death Rates per 1,000

G.1 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1		1931		1932			
Situation of Disease	Males	Females	Persons	Males	Females	Persons	
Buccal Cavity and Pharynx Digestive organs and Peri-	0.18	0.01	0.09	0.17	0.01	0.08	
toneum	0.88	0.87	0.85	0.93	0.90	0.91	
Respiratory organs	0.12	0.06	0.09	0.16	0.04	0.09	
Uterus		0.33	0.33		0.33	0.33	
Other female genital organs		0.12	0.12		0.07	0.07	
Breast		0.33	0.33		0.27	0.27	
Male genito-urinary organs	0.10	_ N	0.10	0.13		0.13	
Skin	0.01	1 1	0.01	0.01	0.01	0.01	
Other or unspecified organs	0.12	0.07	0.09	0.11	0.11	0.11	
Total	1.41	1.79	1.58	1.52	1.74	1.64	

The table on page 74 gives the number of deaths at different age periods in Bradford during the past four years according to the situation of the disease, and sex. This table shows that a very large majority of deaths from malignant disease now arise from affections of one or other of four sites—esophagus and stomach, 427; rectum and colon, 388; uterus, 185; and breast, 199. It is, therefore, seen that by far the greatest number of deaths in the city from cancer occur from malignant disease affecting some part of the alimentary tract.

The table on page 73 gives the deaths for 1932 according to occupation, while the following table shows the deaths among occupied males during the past five years 1928-1932.

# CANCER AND OCCUPATION.

DEATHS, 1928-1932—OCCUPIED MALES.

Occupation	Approximate number employed	Buccal Cavity and Pharynx	Digestive Organs and Peritoneum	Respiratory Organs	Genito-urinary Organs	Others	Total
Combing Dyeing Other Textiles Engineering Transport Workers		10 7 23 13 10	31 33 91 41 41 37	8 7 25 8 8 5	$\begin{bmatrix} 2 \\ 6 \\ 14 \\ 1 & 0 \\ 7 \end{bmatrix}$	19 13 57 44 11	70 66 210 116 77
Building Trades Commercial Workers Clerical Workers Other occupations	8,000 10,000 4,500 30,000	14 13 3 25	37 48 18 81	5 11 7 10	6 13 4 12	27 39 27 64	89 124 59 192

This table seems to show an increased incidence among combers and dyers, but this conclusion can only be accepted with reservation, as the numbers are small and the estimate of those employed loose, while no correction is made for age differences. The higher incidence is not seen in any particular location of the disease.

In 1932 there were 131 deaths from malignant disease in the Muncipal General Hospital, St. Luke's; 26 in the Bradford Royal Infirmary; 10 in the Duke of York Home; and 8 in other institutions in Bradford. Although only 36% of the cases died in hospital, the proportion of cases of malignant disease which in the course of their illness are treated in hospital is very large.

		Others	1	-	-	61	J	1	23			26
	evi: bus muə	Digest Organs Periton	-	61	က	61	ro.	-	131			145
	Breast	Un- marri'd				-	-	-	63			9
	Bre	Mar- ried		1	1	1	1	1	37			37
FEMALES	Genital Organs	Un- marri'd		57	1	1	1,	1	ಣ			ಸಾ
FE	Genital Organs	Mar- ried		1	1	1	1	1	0.9			09
			:	:	÷	:	÷	:	:			:
		Occupation	Woolcombing	Spinning	Weaving	Other Textiles	Commercial	Clerical	Domestic			Total
		Others		-	23	ຄວ	١	1	ণ 1	-	ಣ	15
	rinary sn	Genito-u	ı	က	4	63	-	જા	ಸ	1	-	18
	tory	sriqsəA sgrO	61	က	,9	ಣ	4	1	_		ଚୀ	21
	pue:	Digest Organs Periton	ಒ	œ	30	14	13	20	15	က	21	129
ES	avity	Buccal C	ಣ	-	5	¢1	67	4	-	1	4	23
MALES			:	:	:	i	:	:	i	:	: (	1
			:	÷	:	÷	rs	÷	÷	÷	sı	:
		Occupation	Woolcombing	Dyeing	Other Textiles	Engineering	Transport Workers	Building Trades	Commercial	Clerical	Other Occupations	Total

DEATHS FROM MALIGNANT DISEASE IN BRADFORD, 1929-1932.

	tal	ㄸ	4 4 6 6 6 6 7 199 199 199 199 199 199 199 199 199 1	1092
	Total	M.	201 100 20 100 100 100 100 100 100 100 1	804
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	75	ĮŢ.	E 114   4450 0 11 0 E 014   41 010	154
		M.	a 4 a 5 1 1 1 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	119
	-70	Į,	01 t 04 t 8 6 0 0 0 1 t 1 9 4 t 8 6 1 1 2 1 1 8	178
		M.	∞ 0π14   π11   π1   π1   π2   π2   π2   π2   π	163
	65	E.	1 144 10 8 8 9 9 1 1 8 9 9 1 4 1 8 1 1 1 1	140
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AGE AND SEX.	09—	T.	1 145   6 20 1   8 20 2   4 20   21 1 20 2	141 154
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	—50	Ţ.	01 4 4 4 1 61   10 8 16     8 18	95
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	-45	Ţ.		58
	1	M.	-  -00  01401   01         -   014	61
	-40	땬		37
	1	M.	-   -           -   -   -   -   -	10
	-35	ഥ		24
		M.	01   02   0.0   0.0	13
	Situation of Disease.		Tongue	Totals

Cancer Investigation in Bradford.—In Bradford for some years an attempt has been made to investigate the histories of cases of malignant disease in the city, and records are accumulating as to the incidence prognosis and effects of treatment which throw some light on the position. The work has been done in close co-operation with the medical profession in practice, to whose active interest and sympathy its success is almost entirely due.

Malignant disease, including suspected malignant disease, is voluntarily notifiable, and practitioners are urged to notify all cases coming under their care. In a disease of this description considerable hesitation and difficulty is naturally felt by the practitioners in notifying, but last year 240 cases were reported as against 258 in 1931. In addition also the cases admitted to the hospitals and some nursing homes are reported, so that a considerable proportion of cases come under notice.

The following table shows the notifications received each year from general practitioners since 1928 and for comparison the number of deaths each year is set out in the table.

					1		S	Deaths	
		Year	r		-	Male	Female	Total	Total
1928						95	58	153	440
1929						70	117	187	445
1930						105	123	228	480
1931				•••		101	157	258	486
1932	•••	•••	• • • •			96	144	240	485
			Total	 ls		467	599	1066	2,336

The number of fatal cases of malignant disease in Bradford in the year 1932, of which no record was made prior to death, was 170, or 35 per cent. of the deaths of that year.

In 1929 an investigation was made of the histories of cases of malignant disease treated in Bradford Hospitals during the previous four years, when it was found that 110 such cases were alive at the end of 1928. At the end of 1932, 74 of these cases were alive, the remaining 36 having died. The records of the subsequent years are shown in the following table, which gives 507 cases as alive on 31st December, 1932, treated in the previous four years, so that 581 cases which had undergone treatment in the city were alive on that date, 74 having been treated prior to 1929, 74 treated in 1929, 95 in 1930, 148 in 1931, and 190 in 1932.

Table showing the results of treatment in hospital cases after certain periods.

				Natu	re of	f Tre	eatme	nt			Res	ults	
										[K	nown	to be	Alive
						ad- m		r py		Co	nditi	on	
Position at end of each year	Year of admission to Hospital	No. of Cases	Radical Operation	Non-Radical Operation	Radical	Palliative	By Deep X-Ray Therapy	Not treated by Surgery, Radium or Deep X-Ray Therapy	Died	Leading Normal Life	In poor health	Not reported on	Total alive at the end of each year
1929	1929	284	57	47	62	40	9	69	94	36	5	149	190
1930 {	1929 1930	190 313	44 51	28 53	55 71	31 38	8 21	24 79	82 142	61 42	14 12	33 137	108 171 
1931	1929 1930 1931	108 171 358	29 35 62	10 24 64	39 58 74	12 31 30	8 13 34	10 10 94	25 55 144	58 85 42	8 7 3	17 24 169	83 116 214 413
1932	1929 1930 1931 1932	83 116 214 317	25 28 48 58	8 12 27 57	33 47 67 81	5 9 24 33	6 10 29 8	6 10 19 80	9 21 66 127	58 67 117 34	3 4 12 8	13 24 19 148	74 95 148 190 507

Of the above cases many were admitted to hospital in an advanced state, no less than 70 per cent. of the deaths occurring within six months of admission to hospital. This is seen in the following table.

TABLE SHOWING APPROXIMATE LENGTH OF LIFE OF CASES OF MALIGNANT DISEASE ADMITTED TO HOSPITAL DURING 1929-1932.

	ed by m or	g	3 yrs.	-	-	[	1	-
	treate Radius K-Ray	red re tha	2 yrs.	4	- [	- 1	1	4
	When not treated by Surgery, Radium or Deep X-Rays	Lived not more than	l yr.	9	1	1	1	9
	Wher Surge D	n	6 mos.	54	73	84	69	270
	ν. s.	E E	3 yrs.		[	1	1	1
	ter ent b	red re tha	2 yrs.	63	1	1	[	4
	After Treatment by Deep X-Rays	Lived not more than	l yr.	1	4	7		13
	H H	В	6 mos.	1	∞	7	ಣ	19
Approximate length of life		E E	3 yrs.	4	1	1	1	4
ngth	After Treatment by Radium	Lived not more than	2 yrs.	18	7	6		34
ate le	After Treatment by Radium	Lived ot more	1 yr.	24	23	20	4	7.1
roxim		nc	6 mos.	25	22	15	17	79
App		н	3 yrs.	1	63	1	1	63
	After Non-Radical Operation	Lived not more than	2 yrs.	5	7	ಣ	1	15
	After Non-Radica Operation	Lived	l yr.	12	7	00	က	30
		nc	6 mos.	22	30	40	33	1.25
			3 yrs.	က	က	١	1	9
	er ca <b>l</b> tion	i e than	2 yrs.	14	7	1	1	22
	After Radical Operation	Lived not more than	l yr.	5	12	1	-	18
		ŭ	6 mos.	10	12	15	9	43
	Total Number	or cases who died		210	218	210	127	765
	Year of admission	to Hospital		1929	1930	1931	1932	Total

When the details on the cases treated are considered the records show that the prospect of successful treatment in cancer is generally good when they come under observation sufficiently early in the disease. This is particularly so when the disease affects certain sites, for example the rectum or large bowel, the breast and the uterus. symptoms by the patient and delay in securing treatment are undoubtedly great factors in bringing about fatal results from malignant disease. In the present state of our knowledge these seem to be the two most easily controllable factors in the prevention of cancer mortality. Facilities for diagnosis and for more efficient treatment have been greatly increased in recent years, but every means of treatment known now, or hereafter to be discovered, is bound to fail among patients who neglect to observe significant symptoms or who unreasonably delay to secure adequate treatment. In this city there is developing a close co-ordination between the various agencies dealing with this disease and the practitioners, the surgeons, the radium and X-ray specialists, the physicians and the pathologists are all playing their part. Cases are closely followed up by the investigation officer and urged to attend for subsequent examinations at the clinics, and the cancer arrangements are definitely taking shape as a combined and co-operative effort to secure for the sufferers the maximum possible benefit. In addition also considerable propaganda work is undertaken to educate the public as to the need of seeking early treatment and to keep the medical profession informed of the facilities for diagnosis and treatment which exist in the city. During the year four lectures were given to the medical profession and one to the general public on different aspects of this subject by distinguished medical men.

Respiratory Diseases. Deaths, 411; Mortality rate per 1,000, 1:39.

DEATHS FROM BRONCHITIS AND PNEUMONIA IN PREVIOUS YEARS.

		1923	1924	1925	1926	1927	1928	1929	1930	1931	1932
Bronchitis	•••	397	467	407	297	407	388	523	142	190	141
Pneumonia	•••	319	375	350	218	373	252	417	266	282	234

# AGE INCIDENCE OF DEATHS.

Age Periods	l year	1-2	2-5	5-15	15-25	25-45	45-65	65 upwards
Bronchitis	6	_	1	2		2	31	99
Pneumonia	39	15	8	4	8	28	45	77

Rheumatic Fever and Organic Heart Disease. Deaths, 939; Mortality rate per 1,000, 3·17.

The deaths from rheumatic fever numbered 13 and from organic heart disease 926.

The ages at death of the total number of fatal cases of rheumatic fever during the past ten years has been as follows:—

AGE INCIDENCE OF DEATHS FROM RHEUMATIC FEVER, 1923-1932.

			Under 5 years	5-15	15-25	25-45	45-65	Over 65 years
i	Deaths	 	4	32	31	35	34	26

Deaths from organic heart disease in 1932 occurred in 440 cases amongst males, and in 486 cases amongst females. This gives a death-rate of 3·24 per 1,000 amongst males, and 3·03 per 1,000 amongst females.

# DEATHS FROM ORGANIC HEART DISEASE, 1932, According to SEX AND AGE.

	Sex					15-25	25-45	45-65	Over 65 yrs.	Total
Males	•••				2	2	20	146	270	440
Females		•••			1	3	27	117	238	486
	Total			_	3	5	47	263	608	926

Cerebro-Spinal Fever. There were 9 cases notified, with 4 deaths, in 1932, as against 7 cases, with 3 deaths, in the previous year.

Encephalitis-Lethargica. The cases numbered 2 and the deaths 2, the same as in 1931.

 $\label{eq:Acute Polioence phalitis.} \begin{tabular}{ll} Acute Polioence phalitis. There were no cases notified during the year. \end{tabular}$ 

Deaths from Violence. Deaths, 168; Mortality rate per 1,000, 0.57.

### RECORD OF PREVIOUS YEARS.

	1923	1924	1925	1926	1927	1928	1929	1930	1931	1932
Deaths Mortality rate per		145	162	164	171	195	167	188	179	168
1,000	0.52	0.49	0.56	0.57	0.58	0.68	0.58	0.63	0.59	0.57

# V.-MATERNITY AND CHILD WELFARE.

# (A) INFANT MORTALITY IN 1932.

The infantile mortality rate for the year was 75 per 1,000 births. This rate is 4 per 1,000 births more than the corrected rate for 1931.

Corrected Infantile Mortality Rates from 1922.

Year	1923	1924	1925	1926	1927	1928	1929	1930	1931	1932
Bradford	78	91	94	91	91	70	79	75	71	75
England and Wales	68	74	75	70	69	66	74	60	66	65

Age Distribution of Infantile Mortality. The infantile mortality rate in the first four weeks of life may be taken as an indication of the operation of antenatal and neonatal causes in bringing about infant deaths. This rate from 1909 is seen in the following table, where it will be noticed that there has been a considerable increase in the mortality in the first week of life.

Infantile Mortality Rate per 1,000 Births in the First Four Weeks of Life, from 1909.

-				Bradford			England and Wales
	Year		Wee	k		Total for	Total for four
		1	2	3	4	four Weeks	Weeks
1	1909	34.3	4.7	5.2	5.2	49	41
-	$\frac{1910}{1911}$	$\frac{28.0}{33.7}$	· 6·2 7·3	5·3 5·6	5.8	45	38
1	1911	29.4	5.1	5·0 5·7	4.7 $3.2$	$\begin{array}{c} 51 \\ 43 \end{array}$	$\frac{40}{38}$
4	1913	32.1	6.5	6.2	3.1	48	39
	1914	$\frac{32}{27 \cdot 3}$	5.9	$7.\overline{2}$	3.8	44	39
-	1915	28.2	6.5	$5\overline{\cdot 3}$	3.9	44	38
1	1916	31.1	8.1	$4 \cdot 7$	$4 \cdot 7$	49	37
1	1917	31.2	$7 \cdot 4$	2.6	$3 \cdot 0$	44	37
ı	1918	28.1	$6 \cdot 2$	3.6	3.6	42	36
F	1919	34.0	5.9	$4\cdot 2$	2.7	47	40
-	1920	27.8	8.9	5.8	3.6	46	35
2	1921	29.9	6.8	4.9	2.8	45	35
١	1922	22.2	6.5	5.0	3.8	37	34
1	1923	22.9	5.3	4.0	4.2	36	32
Ĉ	$1924 \\ 1925$	27.3	4.8	5.0	2.4	40	33
	1926	$23.8 \\ 24.0$	$4 \cdot 1 \\ 6 \cdot 2$	4·8 5·5	$3 \cdot 1$ $3 \cdot 2$	36 39	32 32
	1920	25.0	5·2 5·8	3.0	2.5	39	$\frac{32}{32}$
1	1928	26.2	4.3	2.5	0.9	$\frac{30}{34}$	31
	1929	24.4	3 7	3:0	3 2	35	33
-	1930	26.7	5.3	3.9	1.6	37	31
3	1931	26.5	5.6	2.9	$2 \cdot 2$	37	32
-	1932	31.6	$5 \cdot 2$	2.0	$2 \cdot 2$	41	-

For the remainder of the first year of life, the Infantile Mortality Rate per 1,000 births is given in the following table, which shows a comparatively low rate of infantile mortality after the first month.

Infantile Mortality Rate per 1,000 Births after the First Month of Life, from 1909.

	1 to 3	months	3 to 6	months	6 to 12	months
Year	Bradford	England and Wales	Bradford	England and Wales	Bradford	England and Wales
1909	22	20	19	19	29	29
1910	22	$\frac{20}{20}$	$\frac{19}{21}$	19	$\frac{29}{34}$	
1910	$\frac{22}{26}$	$\frac{20}{25}$	$\frac{21}{28}$	26	35 35	$\begin{array}{c} 28 \\ 39 \end{array}$
1912	19	18	14	15	$\frac{35}{22}$	$\frac{39}{24}$
1913	21	$\frac{10}{20}$	27	$\frac{15}{20}$	31	$\frac{24}{29}$
1914*	$\frac{21}{22}$	19	$\frac{21}{20}$	19	35	28
1915*	19	19	$\frac{20}{21}$	19	$\frac{33}{34}$	34
1916*	24	17	19	15	24	22
1917*	23	17	$\frac{10}{24}$	16	31	$\frac{2\tilde{\epsilon}}{26}$
1918*	23	17	23	16	35	$\frac{26}{28}$
1919*	18	15	20	13	28	21
1920*	20	16	17	13	17	17
1921*	$\overline{23}$	15	18	14	$\frac{1}{2}$	19
1922*	15 ′	13	13	11	21	19
1923*	13	11	13	$\overline{10}$	15	16
1924*	18	12	14	11	20	19
1925*	16	13	17	11	26	19
1926*	15	12	15	10	22	16
1927*	15	11	15	10	25	17
1928*	15	11	10	9	11	14
1929*	12	12	10	11	23	10
1930*	13	10	9	8	15	12
1931*	11	11	10	9	12	15
1932*	12		7	_	15	

o The figures of infantile mortality for Bradford for these years are founded on numbers of births corrected in each year.

Illegitimacy and Infantile Mortality. Since 1923 the number and the percentage of illegitimate births are shown in the following table:—

ILLEGITIMACY IN BRADFORD FROM 1923.

Year	1923	1924	1925	1926	1927	1928	1929	1930	1931	1932
Number Percentage of total	275	285	227	260	255	240	220	259	245	230
births		5.7	4.7	5.5	5.9	5.4	5·1	5.9	6.0	5.7

The infantile mortality rate is always very much higher among allegitimate than among legitimate infants. The following table shows the corrected Infantile Mortality Rates amongst these two classes of infants for the past ten years:—

CORRECTED INFANTILE MORTALITY RATES AMONG ILLEGITIMATE AND LEGITIMATE INFANTS.

Year	1923	1924	1925	1926	1927	1928	1929	1930	1931	1932
Illegitimate	201	144	123	142	133	115	128	116	122	113
Legitimate	72	89	94	89	91	67	77.	72	68	73

Place Distribution of Infantile Mortality. The Ward which showed the highest infantile mortality rate was South, where the rate was 144 per 1,000 births, while the East Bowling Ward also showed a rate above 100 per 1,000. The rate was lowest in the Tong, Bolton and Thornton Wards, in each of which it was below 50 per 1,000. The record of infantile mortality for the past 10 years in the different wards of the city is shown in the table on page 84.

Causes of Death in Infantile Mortality. The table on page 85 shows the deaths from stated causes under one year for the past ten years, and the following table shows the rate from certain of the most serious causes.

Infantile Mortality per 1,000 Births from Developmental and Wasting Diseases in Bradford since 1922.

Cause of Death	1923	1924	1925	1926	1927	1928	1929	1930	1931	1932
Premature Birth Atrophy, Debility,		22.2	18.0	22.3	22.0	24.0	18.2	20.0	19.8	24.6
and Marasmus Congenital Mal-	7.0	7.4	12.6	11.3	7.2	4.8	7.4	8.5	4.2	4.5
formations	7.2	8.0	7.2	7.6	5.1	5.4	5.5	5.5	5.9	6.7
Atelectasis	1.1	0.4	0.8	1.1	1.6	0.7	0.5	3.4	4.4	1.5

Infant Mortality Rate per 1,000 Births, in Wards, for the Years 1923 to 1932.

				1923	1924	1925	1926	1927	1928	1929	1930	1931	1932
Allerton	•••	•••		76	26	60	44	63	62	53	73	68	61
Bolton	•••		•••	91	88	75	99	104	75	60	67	45	47
Bradford M	oor	•••	•••	53	94	76	82	99	40	70	57	57	62
Clayton	•••	•••		90	53	53	97	34	28	39	81	62	58
East	•••	•••		63	76	83	86	94	60	126	70	64	86
East Bowlin	ng	•••	•••	76	107	111	164	113	74	98	77	99	101
Eccleshill	•••	•••	•••	21	84	63	129	61	45	41	85	75	76
Exchange		•••	•••	77	141	102	169	185	140	182	68	86	93
Great Horte	on	•••		69	64	77	57	61	52	62	34	<b>5</b> 9	57
Heaton	•••	•••		49	54	64	97	91	66	72	54	38	77
Idle	•••	•••	•••	64	58	70	61	86	49	92	86	64	96
Listerhills	•••		•••	118	112	91	111	107	71	105	95	70	62
Little Hort	on	•••	•••	96	92	106	67	102	64	101	60	53	56
Manningha	m.	•••		68	99	78	65	75	43	39	73	48	66
North	•••	•••		87	143	161	133	120	87	106	96	86	73
North Bierl	ley (Ea	ast)		81	112	85	88	109	72	69	77	94	83
North Bierl	ley (W	est)		81	73	100	73	75	87	62	71	88	97
South		•••		144	125	116	130	117	101	108	108	118	144
Thornton		•••	•••	114	22	96	105	50	89	34	44	25	48
Tong	•••	•••	•••	71	70	95	57	124	136	59	65	64	37
West	•••	•••	•••	79	127	153	105	105	124	115	104	125	91
West Bowli	ing	•••	•••	69	87	127	59	71	68	73	101	73	72
City	•••			78	92	95	92	92	69	80	75	71	75

INFANT MORTALITY: NEIT DEATHS FROM STATED CAUSES UNDER 1 YEAR OF AGE FROM 1923.

Causes of Death.	1923	1924	1925	1926	1927	1928	1929	1930	1931	1932
Small-pox	1		1	1	ı	1	١	l	ı	
Chicken-pox	ļ	1		ļ	Į.	1	-			
Measles	15	-	15	က	21	2	œ	7	67	4
Scarlet Fever	2	ļ		1	I	_	1	-		1
Whooping Cough	6	12	20	16	7	21	6	24	က	<b>∞</b>
Diphtheria and Croup		_	63	က	4	-	က	23	-	
Erysipelas	2	ļ	1	-	2	_	-	-	-	1
Tuberculous Meningitis	4	2	7	2	œ	2	63	-	23	īĠ
Abdominal Tuberculosis	_	က	63	-	1	-	-	I		ļ
Other Tuberculous Diseases	2	_	-	4		ļ	67	1	ಣ	
Meningitis (not tuberculous)	7	20	က	4	က	2	9	က	ಬ	9
Convulsions	41	39	27	25	28	10	22	21	20	15
Laryngitis	-		1	1	<b>©1</b>	1	63	1	ļ	!
Bronchitis	18	28	36	20	50	7	17	6	12	9
Pneumonia (all forms)	41	75	80	39	7.1	40	62	30	48	39
Diarrhea and Enteritis	22	31	36	63	30	28	20	23	22	25
Gastritis	က	က	-	23	4	63	1	က	1	ı
Syphilis Syphilis	19	<b>∞</b>	œ	9	က	က	9	7	-	-
Rickets	7	က		-	-	1	-		7	-
Suffocation (overlying)		7	63	4	4	9	9	4	4	က
Injury at Birth	7	6	63	2	œ	5	4	6	-	9
Atelectasis	9	7	4	32	7	3	23	15	18	9
Congenital Malformations	38	40	35	36	22	24	24	24	24	27
Premature Birth	106	Ξ	87	105	91	106	79	87	81	66
Atrophy, Debility, and Marasmus	37	37	61	53	31	21	32	37	17	18
Other Causes	31	46	38	41	31	21	36	53	56	28
Total	412	462	461	435	404	307	346	327	292	302
	_								1	

INFANTILE MORTALITY IN CERTAIN GREAT TOWNS FROM 1923,

Deaths per 1,000 Births.

1932	89	7.5	53	81	52	89	88	70	91	67	98	97	80	09	97	73	87	72	
1931	70	71	53	75	59	83	92	64	93	64	83	92	82	55	88	69	86	67	
1930	62	75	59	62	56	7.1	99	55	81	59	78	7.1	92	57	7.5	99	7.1	65	
1929	79	80	61	74	78	107	96	81	95	70	96	83	95	29	114	87	103	77	
1928	65	69	61	65	65	80	7.1	20	92	67	90	82	85	54	96	73	98	64	
1927	7.3	92	56	81	7.1	91	77	92	91	59	82	7.5	82	54	75	89	97	09	
1926	70	92	89	75	55	91	87	74	103	64	83	78	86	53	86	78	66	56	
1925	75	95	92	83	89	100	87	98	86	29	92	79	94	61	103	83	105	58	
1924	80	92	69	93	95	90	102	92	102	69	97	68	84	99	119	88	100	69	
1923	71	78	61	98	72	83	85	81	86	09	85	88	85	52	95	89	93	58	
	:	:	÷	:	:	÷	÷	÷	÷	:	:	÷	:	i	:	:	÷	÷	
	:	:	÷	÷	;	:	:	:	÷	:	•;	÷	÷	:	÷	÷	:	:	
Town.	:	:		÷		:	:	:	÷	:	:	:	:	:	:	:	:	:	
	Birmingham	Bradford	Bristol	Halifax	Huddersfield	Hull	reeds	Leicester	Liverpool	London	Manchester	Newcastle	Nottingham	Portsmouth	Salford	Sheffield	Stoke-on-Trent	West Ham	

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Infant Mortality, 1906-1932.

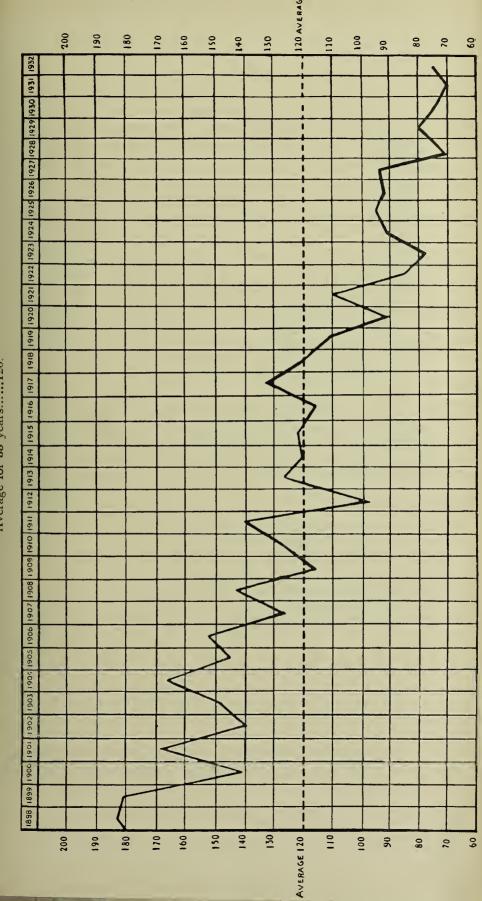
	Deaths under (	One Year of Age p	er 1000 Births
YEAR	Total	Diarrhœal Diseases	Total less Diarrhœal Diseases
1906	152	34	118
1907	124	11	113
1908	143	30	113
1909	116	6	110
1910	127	20	107
1911	139	32	107
1912	99	4	95
1913	128	27	101
1914	122	15	107
1915	123	16	107
1916	119	11	108
1917	132	8	124
1918	125	9	116
1919	114	8	106
1920	93	6	87
1921	109	8	101
1922	87	4	83
1923	78	4	74
1924	92	6	86
1925	95	7	88
1926	92	13	79
1927	92	7	85
1928	69	6	63
1929	80	5	75
1930	75	5	70
1931	71	5	66
1932	75	6	69

Infant Mortality in Bradford and England and Wales for each year, and in groups of five years since 1886.

ВВ	ADFORD.	ENGLAND AND WALES.	ВЕ	RADFORD.	ENGLAND AND WALES.
1886	Average 168	Average	1911	Average	130 Average
1887	179	145	1912	99	95
1888	153 } 170	136 } 145	1913	128 } 122	109 } 110
1889	181	144	1914	122	105
1890	169	151	1915	123	110
1891	181	149	1916	119	91 ]
1892	155	148	1917	132	97
1893	198 } 176	159 } 151	1918	125 } 117	97 } 91
1894	144	137	1919	114	89
1895	203	161	1920	93	80
1896	143	148	1921	109	83 ]
1897	179	156	1922	87	77
1898	184 } 165	160 } 156	1923	78 } 92	$69$ $\left.\begin{array}{c} 76 \end{array}\right $
1899	181	163	1924	92	75 .
1900	140	154	1925	95	75
1901	168	151	1926	92	70
1902	139	133	1927	92	69
1903	148 } 153	132 } 138	1928	69 } 82	65 } 68
1904	167	145	1929	80	74
1905	144	128	1930	75	60
1906	152	132	1931	71	66
1907	124	118	1932	75	65
1908	143 } 132	120 } 117			
1909	116	109			
1910	127	106	K		

INFANT MORTALITY, 1906-1932.

Average for 35 years.....120.



### (B) MATERNITY.

Supervision of Midwives. The work is undertaken by a woman medical officer of the Maternity and Child Welfare Staff, with a nurse assistant inspector of midwives. The number of midwives practising in Bradford on the 31st December, 1932, was 66, of whom 64 held the Certificate of the Central Midwives Board by examination, or its equivalent, while 2 were on the Roll as bona-fide practitioners before the passing of the Midwives Act, 1902. Inspection of the midwives' work was carried out on 330 occasions, of which 232 were routine inspections and 98 special inspections. In accordance with the provisions of the Nursing Homes Registration Act, 1927, maternity homes have been inspected regularly throughout the year.

In Bradford the midwives attended in 1932, 2,854 or 67.7 per cent. of the notified births. The number of cases attended by each midwife has varied from none to 188; their work is seen in the following table:—

Number of Cases Attended by Midwives, 1932.

	Trained l	Midwives	Untraine	d Midwives
Number of Cases	No.	Total Cases	No.	Total Cases
Over 150	2	346		
130150	4	545	_	_
110—130	1	119		_
90110	6	624	_	<u> </u>
70—90	4	323	. —	
5070	5	297	_	
3050	8	335		_
10—30	10	198	1	23
Under 10	16	40	1	4
None .	. 8	_	_	
Total	64	2,827	2	27

The number of cases now attended by untrained midwives is very small indeed, amounting only to 0.9 per cent. of the total attended by midwives.

The number of notifications of sending for medical help was 613, or 21·4 per cent. of their cases. In 498 cases medical aid was called in on

account of the mother, and in 115 cases on account of the child. The reasons given for medical aid in the case of the mother were as follows:—

Ruptured Perineum 193; Uterine Inertia 36; Malpresentation 20; A.P. Hæmorrhage 15; Pyrexia 16; Adherent Placenta 12; P.P. Hæmorrhage 17; Contracted Pelvis 21; Premature Birth 13; Chest Trouble 1; Debility 17; Abortion 5; Dead Fætus 6; Albuminuria 14; Placenta Prævia 1; Œdema 10; Abnormal conditions (not due to pregnancy) 7; Ante-Natal 18; Prolonged Labour 66; Mastitis 3; Patients' request 4; Emergency 3.

In the case of the child, the reasons for sending for medical help were as follows: Dangerous Feebleness (premature or otherwise) 44; Inflammation of Eyes 44; Convulsions 6; Malformation 7; Cleft Palate 2; Skin Eruption 3; Jaundice 1; Spina Bifida 2; Abnormal Condition 2; Tongue Tie 3; Circumcision 1.

Four notices were sent to the Local Supervising Authority of the deaths of infants under the care of midwives before the arrival of a medical practitioner. The midwives reported 34 still births, or about  $1\cdot 2$  per cent. of their cases.

The number of cases attended by municipal midwives in the city was 595 or 20.9 per cent. of the total cases attended by midwives in the city. The average number of cases attended in 1932 by each municipal midwife was 85. The following statement shows the work done by municipal midwives in two years, 1931 and 1932, as compared with the total work by midwives in the city.

WORK OF MUNICIPAL MIDWIVES.

	19	31	19	32
	All Midwives	Municipal Midwives	All Midwives	Municipal Midwives
Births Attended	2,987	614	2,854	595
Medical Aid Notices	665	150	613	146
Still Births	28	5	34	15
Death of Mother	3		3	1
High Temperature	26	6	16	8
Total Visits to Patients	35,573	10,113	39,403	8,766
Ante-Natal Visits	10,086	2,745	10,146	2,454

Under the Midwives Act, 1918, the total number of claims for midwifery fees sent in by medical practitioners during 1932 was 363. The Local Supervising Authority determined to recover in full 115 of these claims, and in part 41, leaving 207 paid in full by the Authority. The total cost to the Authority of these claims was £193 0s. 6d.

Ante-Natal Work. The Health Visitors carry out home supervision of such cases as they are aware who are not attending an ante-natal clinic or not under medical supervision, or not attended by a municipal midwife. During 1932 they had 265 expectant mothers under observation before the birth of the child, 875 expectant mothers being visited by either municipal midwives or health visitors during the year.

The total number of patients attending the various ante-natal clinics in 1932 was 2,055, including St. Luke's Hospital. The number continues to increase, and represents about 72 per cent. of the cases booking midwives. The total number of attendances amounted to 7,290.

Still Births. The number of still births registered in 1932 was 183, or 4.5 per cent. of the live births registered. The number notified, however, was only 173, and for purposes of comparison the following table is given:—

STILL BIRTHS NOTIFIED IN PREVIOUS YEARS.

Year	1922	1923	1924	1925	1926	1927	1928	1929	1930	1931	1932
Number	223	221	198	186	203	195	200	183	195	177	173
Per cent.	4.3	4.2	4.0	3.8	4.2	4.5	4.7	4.2	4.3	4.3	4.3

Deaths of Women in Childbirth. In the tables at the end of the report, 19 deaths occurring in the puerperal state in the city are shown. In addition to these, 3 deaths occurred in St. Luke's Hospital of cases which were admitted from areas outside the city of Bradford.

These deaths are classified in the three following tables, according to the age periods of the mother, the duration of pregnancy, and the condition from which the deaths arose.

# DEATHS IN CHILD BIRTH.

# (1) Age Period and Classified Cause.

			Age	Period			
Classified Cause	20 years	25 years	30 years	35 years	40 years	45 years	Total
Toxaemias Septic Conditions		3	2 2	_ 1	<u> </u>	=	3 10
Accidents of Preg- nancy Accidents of Parturi-	_	1	_	1	_	_	2
tion Cæsarian Section	=	1 —	1	<u> </u>	=	=	3 1
Totals	4	5	6	3	1	_	19

# (2) Duration of Pregnancy and Classified Cause.

Classified		Duration of Pregnancy									
Cause	l mon.	2 mos.	3 mos.	4 mos.	5 mos.	6 mos.	7 mos.	8 mos.	9 mos.	un- known	Total
Toxaemias Septic Condi-	_	_	-		-	_	1	1	1		3
tions	l —	-	_	-	-	_	-	2	8	<b>—</b>	10
Pregnancy Accidents of	_	_	-	-	_	_	1	1	_	<u> </u>	2
Parturition Cæsarian	-	_	-		-	-	1	1	1	-	3
Section									1		1
Totals						c —	3	5	11		19

# (3) Age Period and Duration of Pregnancy.

D					1	Age Per	iod		
Durati Pregn			20 years	25 years	30 years	35 years	40 years	45 years	Total
l month			_			_		_	_
2 months	•••	•••	.—	_				_	_
3 months	•••			_	l —			_	_
4 months	•••		_			<u> </u>		_	_
5 months		• • •	<u> </u>	_	<u> </u>	_		_	
6 months				_	_	_			_
7 months	•••			1	1	1	_	_	3
8 months				2	2	1		l —	3 5
9 months	•••	•••	4	2	3	1	1	<del>-</del>	11
Totals	•••		4	5	6	3	1	_	19
				l i		1		0	

The accommodation for maternity cases available in Bradford includes 10 beds in the Bradford Maternity Hospital, 90 beds at the Municipal General Hospital, and about 28 at St. Monica's Home.

The maternity cases at the Municipal General Hospital numbered 1,397, and are reported on page 119.

The number of maternity cases dealt with at the Bradford Maternity Hospital in 1932 was 188. The number of live children born was 180, including 11 premature births, 2 of whom died within 14 days, and the number of still-births was 8.

The number of maternity cases dealt with at St. Monica's Home in 1932 was 57.

The number of Puerperal Fever cases notified in 1932 was 25, and of Puerperal Pyrexia 42, of which 53 were admitted to Hospital and 14 nursed at home. There were 10 deaths from Puerperal Fever.

The total number of cases of ophthalmia neonatorum notified was 15. Of these 2 were born in the Municipal General Hospital, 3 were admitted to Hospital with the mother, 3 were treated as out-patients at the Eye and Ear Hospital, and all have made a complete recovery.

# (C) INFANCY.

During the year 1932 the number of births registered in Bradford was 4,371, while the number notified under the Notification of Births Act, 1907, was 4,213.

#### RECORD OF PREVIOUS YEARS.

		1926	1927	1928	1929	1930	1931	1932
Births registered		4,708	4,316	4,471	4,396	4,445	4,368	4,371
Births notified	•••	4,702	4,368	4,443	4,406	4,506	4,277	4,213
Notifications to 100 registrations	•••	99.9	101.2	99.4	100.2	101.4	97.8	96.4

95

Time of Receipt of Notification of Birth in 1932.

			Receipt	of Noti	fication				Per cent
Persons notifying	Within 2 days	3-7 days	1-2 weeks	2-3 weeks	3-4 weeks	1-2 m'nths	2-3 m'nths	Total	received late
Doctor	205	101	15	6	_	_	_	327	37.3
Midwife	2026	795	33	_	_	_	_	2854	29.0
Father	21	11	2	_	2	_	_	36	41.7
Doctor and Midwife	6	3	_	_	_	_	_	9	33.3
Father and Doctor	_	1	· —	_	_	_	_	1	100.0
Institutions	857	126	2	_	1	_	_	986	13.1
Total	3115	1037	52	6	3			4213	26 · 1

Following the receipt of the notification generally all cases notified by midwives are visited as soon as possible after the birth, and also those cases with doctors in attendance where the home circumstances seem to warrant it. The number of births notified in 1932 which were visited was 3,856, or 94 per cent. of all the births.

BIRTHS VISITED IN 1932.

Perso			Tin	T 1				
attend	lance		1 week	2 weeks	3 weeks	4 weeks	Over 4 weeks	Total
Doctor	•••	•••	269	270	18	6	1	564
Midwife			2,265	27	_	1	- /	2,293
Institution	•••			984	14	1	-	999

Of the 3,856 births visited it was considered that 67 required visitation once only during the first year, while 3,789 were selected for more frequent revisitation during their first year of life. The total number of visits paid in 1932 to infants was 37,735.

### FEEDING OF INFANTS UNDER VISITATION COMPLETING FIRST YEAR.

	Hand fed	Mixed feeding		Who	olly breast	fed	
	from birth	from birth	Under l month	Under 3 months	Under 6 months		9 months and over
Infants	51	37	201	1470	442	1,551	48
Percentage	1.3	1.0	5.3	38.7	11.6	40.8	1.3

#### Work of Mothers in 1932.

	Ou	tside the ho	me	Inside the
	Factories	OtherWork	Total	Home
Within six months before birth	230	31	261	3,375
Within six months after birth	220	15	235	3,390

This table as compared with the previous year shows a lessnumber of mothers employed outside the home before and after birth.

Of the 261 mothers working within six months before confinement 9 were employed within three months before birth, and of the 235 mothers working within six months after confinement 10 returned to work within three months after the birth.

Child Centres. The Local Authority conducts 11 Child Clinics in the city, at each of which a medical officer attends. The principal child clinic is situated in Morley Street, and it is open every week-day morning and afternoon except Thursdays and Saturdays, when it is open in the morning only. The following table shows the location of each clinic, the days on which it is in operation, and the total attendances last year.

97

#### CHILD CLINICS IN BRADFORD.

Clinic	c	Days of Attendance		Times of Attendance	Attendances during year
Central, Morle	y Street	Daily		Morning and Afternoon	28,815
Mount Street		Tuesday	•••	Morning and Afternoon	4,434
Green Lane		Monday and Thursday	•••	Afternoon only	5,424
Otley Road		Wednesday	•••	Morning and Afternoon	6,067
Brownroyd		Thursday		Morning and Afternoon	5,444
Great Horton		Monday		Morning only	2,062
Wakefield Roa	ıd	Wednesday		Afternoon only	3,007
Low Moor		Tuesday		Afternoon only	2,042
Lapage Street		Thursday		Afternoon only	3,245
Idle		Friday	• • •	Afternoon only	2,717
Clayton		Alternate Wednesdays		Afternoon only	498

These Centres are all doing excellent work and are keenly appreciated by those who take advantage of their services. They are primarily special educational institutions for instruction to mothers on how to keep babies and young children healthy. Mothers seeking such knowledge are welcomed, especially if the baby is well; it is too late often to seek this information when the baby is ill. All mothers require this knowledge, and the work of the Centres is directed to benefiting the child through the mother, whose co-operation is most desired.

The number of attendances in 1932 at the Central Clinic was 28,815, and the number at the District Clinics, including the two Branch Clinics closed in August, 37,418, an average of 57 cases per session at the Central Clinics, and 51 cases per session at the District Clinics. There has been an increase of 1,484 attendances at child clinics during 1932, which is altogether satisfactory.

The number of children registered for the first time at the Child Clinics in 1932 was 2,633. The following table shows the growth of the work since its inception.

98 Child Clinics.

Year	New Cases	Total attendances	Average weekly attendances	Average daily attendances
1914	2,488	31,193	600	120
1915	1,987	28,192	540	108
1916	1,998	23,490	452	90
1917	1,721	19,194	369	74
1918	1,606	17,068	328	65
1919	1,810	19,495	375	75
1920	2,832	28,829	554	110
1921	2,872	35,784	688	137
1922	2,115	25,868	497	99
1923	1,926	24,320	468	93
1924	1,822	24,952	480	96
1925	3,102	35,937	680	136 .
1926	2,551	38,279	736	147
1927	2,341	41,337	795	159
1928	2,604	50,689	975	195
1929	2,804	55,030	1,101	220
1930	2,908	60,135	1,203	241
1931	2,782	64,749	1,295	259
1932	2,633	66,233	1,325	265

The work at the Central Clinic is arranged into sessions for infants, sessions for children, and "family" sessions attended by mothers who have an infant and one or more children. At the Branch Clinics, which are attended for the most part by mothers with families—infants and young children are dealt with at each session.

Death-rate Among Young Children. The mortality rates among children from 1—2 years and 2—5 years are seen in the following tables. The number of cases of Measles coming under notice under 5 years of age was 1,523, of whom 39 were removed to municipal hospitals. The number of cases of Whooping Cough under 5 years was 1,175.

MORTALITY RATE BETWEEN 1 AND 2 YEARS PER 1,000 PERSONS LIVING AT THESE AGES.

	1923	1924	1925	1926	1927	1928	1929	1930	1931	1932
General Mortality Rate	28.7	25.8	30.1	18.6	26.3	14.7	28.8	16.9	15.4	9.0
Mortality Rate from specified Group Causes:— Common Infec-					!					
tious Diseases	7.70	$\frac{4 \cdot 26}{1 \cdot 28}$	13·31 0·22	3.45	7·81 0·47	3.49	8·40 0·51		3·79 0·50	$\begin{bmatrix} 3.10 \\ 0.52 \end{bmatrix}$
Tuberculosis Bronchitis and		2.34		2.76	2.13	1.25	2.54	1.77	1.26	0.52
Pneumonia Diarrhœa and	9.00	10.23			11.13	4.74	12.9	3.53	5.55	3.88
Enteritis	1.04	0.85	1.53	2.07	0.71	2.00	0.76	1.26	0.50	_
Estimated Population between 1 and 2 years on										
June 30th		4,692	4,584	4,347	4,223	4,008	3,928	3,968	3,961	3,871

# MORTALITY RATE BETWEEN 2 AND 5 YEARS PER 1,000 PERSONS LIVING AT THESE AGES.

		 I	1		1	1	1	
	1925	1926	1927	1928	1929	1930	1931	1932
General Mortality Rate Mortality Rate from Specified Group Causes:— Common Infectious	7.19	4.75	7.74	4.08	7.08	5.16	4.84	4.17
Diseases Influenza Tuberculosis Bronchitis and Pneu-	2·76 0·0 0·76	1·29 0·0 0·65	2·63 0·15 0·58	0.85 0.08 0.54	2·01 0·32 0·64	2·00 0·08 0·42	1·19 0·08 0·34	1·11 0·26 0·77
monia Estimated Population between 2 and 5 years	2.00	0.72	2.12	0.77	1.93	1.08	1.70	0.77
on June 30th	14,474	13,907	13,703	12,999	12,422	12,022	11,780	11,748

## (D) GENERAL.

The Health Visitors paid 76,855 visits to cases during the year. Of these, 265 were made to ante-natal cases, 37,735 to infants under one year, 3,856 being primary visits, 29,383 to children between 1 and 5 years of age, 3,971 to tuberculosis cases, 30 to cases of infective enteritis, 3,264 to cases of measles, 1,874 to cases of whooping cough, and 333 to nursing mothers and other cases.

The dental work in connection with maternity and child welfare is shown in the table on page 144, where it will be seen that 210 mothers and 514 young children were under treatment for dental conditions during 1932.

The main voluntary effort in connection with Maternity and Child Welfare is undertaken by the Bradford Maternity Care Committee, which still continues its educational work among mothers attending various centres. Mothers are instructed in dressmaking, sewing, knitting, cookery and mothercraft by experienced teachers. There are five ecntres, namely, Wakefield Road, Otley Road, Lilycroft, Green Lane and Fairweather Green, the total number of attendances made by the mothers is 4,901, with an average weekly attendance at each of 20.

During the year, 1,043 new garments have been made at the classes, and over 290 were re-made from old clothes brought by the mothers. There was also a good proportion of garments knitted by the mothers. A maternity box is available for the use of the poorer members at the time of their confinement.

The Holiday Home at Grassington continues to be very successful, 126 mothers and 195 children having visited the Home. Out of that number, 4 paid for themselves, 20 were sent to the Home by the Health Committee, 77 were paid for by the Hospital and Convalescent Fund, 5 by the Guild of Help, and 20 by other organisations.

Home Helps. During the year, home helps have attended 27 cases, covering 343 days. Of these, 11 received the service free, 15 paid part cost, and 1 paid full cost.

### VI.—BACTERIOLOGICAL AND PATHOLOGICAL WORK.

The report of the City Pathologist, which follows, gives an account of this work which has much increased during the past eight years. The laboratories have proved of great value in the protection of the health of the public and in the diagnosis and treatment of disease, thereby increasing the efficiency of these efforts in the City. The constantly increasing work of the laboratory is exceedingly difficult to cope with. It is essential work in the protection of the public health, and it cannot reasonably be curtailed, and it will render necessary a further increase of staff and accommodation.

# REPORT BY THE CITY PATHOLOGIST,

## M. A. C. BUCKELL, M.B., B.S. (London), D.P.H.

During 1932, 31,780 specimens were examined in the Laboratories, an increase of 6,153 over last year's record.

			No.	of spe	cimens examined
1925	 	 			14,396
1926	 	 			15,675
1927	 	 			17,770
1928	 	 			19,944
1929	 	 			22,695
1930	 	 			23,872
1931	 	 			25,627
1932	 	 		•••	31,780

Of the 31,780 specimens examined, 8,119 were examined in the Laboratories at St. Luke's Hospital, an increase of 1,391 over last year. Unfortunately the staff at St. Luke's has had to be reduced in order to strengthen that at Edmund St. to enable them to carry on the Public Health work for the City. This leaves St. Luke's Hospital with an inadequate staff to carry on the increasing volume of work required by the Hospital.

The specimens were distributed as follows:—

Anthrax						297
Infectious	diseases			•••	•••	21,613
Food, etc.	•••	•••	•••			4,385
Clinical			• • • •	• • • •		5,485
						31,780

#### Anthrax:

*Human		 	4
Wool, etc. Local Samples		 	22
Liverpool Raw		 	122
Liverpool Disin	fected	 	117
Biological Tests	·	 	32
*All four human cases were negat	ive.		297

Control of the work of the Government Wool Disinfecting Station at Liverpool was carried out as in former years. B. Anthracis was recovered from 23 of the 122 samples of Raw Wool, etc. All the 117 samples of Disinfected Wool, etc., were free from this infection.

### INFECTIOUS DISEASES:

Actinomycosis	•••	• • •	•••		2
Cerebro-spinal fever					51
Diphtheria					7,142
Dysentery					166
Enteric fever	•••			• • •	1,060
Erysipelas		• • •			1
Food poisoning					11
Malaria					2
Meningitis		• • •		• • •	80
Pneumonia					57
Puerperal fever					95
Scarlet fever					136
Tuberculosis—Cerebro-	spinal f	luids			37
Fæces	•••				21
Fluids					45
Pus			•••		34
Sputa					3,347
Urine					57
Biologica	.l tests				12
Undulant fever					109
Venereal diseases					9,120
Vincent's Angina					26
Weil's disease					2
				-	
					21,613

There is an increase in the number of specimens examined for Enteric Fever from 116 in 1931 to 1,060 in 1932. Eight cases of infection by B. typhosus and 41 by B. paratyphosus B. were established.

Dysentery due to infection by two organisms hitherto unknown in the district was found. As these cases were generally of a mild character, it is probable that the number detected represents but a small part of those occurring.

Sixteen cases due to infection by B. dysenteriæ Sonne, 10 due to B. dysenteriæ Newcastle, and 4 due to B. dystenteriæ Flexner were established.

Two cases of undulant fever were found. Cases of this disease are now appearing all over the country, and the problems connected with its spread by milk and its derivatives are becoming urgent. Further control over the milk supply is wanted. Notification of cases would probably lead to more cases of the disease being found and investigated, and thus aid in the control of the disease.

### VENEREAL DISEASES.

There has been some increase in the number of specimens received for Wassermann Reaction, mostly from Institutions. Kahn's reaction has been carried out as a routine procedure, and has shown itself a very valuable aid in both treatment and diagnosis.

During 1932 and the early weeks of 1933 a comparative test of the methods used in the laboratory for both Wassermann Reactions and Kahn's test with those in use by the laboratories of the Ministry of Health has been carried out. Four hundred sera have been examined by both laboratories, and the results which are now available are very satisfactory.

# Venereal Diseases Summary:

Dark ground examinations for	Spirochæ	tes	34
Lange goldsol Reactions		•••	102
Wassermann Reactions			4,371
Kahn tests			2,756
Smears, etc., for gonococci			1,857
		_	

9,120

FOOD.

Milk. Two thousand two hundred and ninety-four samples of milk were examined from the following sources:—

	_					
Milk depôt—A.T.T. m	ilk	•••			• • •	70
Other sour	ces	• • •			• • •	105
Bottles of	milk	as iss	ued		•••	34
City "street samples,"	' sour	ce witl	nin the	City		334
City "street samples,"	sourc	e outs	ide the	City		398
City—A.T.T	••					2
Certified .		• • •	•••			16
Grade A	••					46
Heat treated .						29
Sterilized .						5
Samples from Institut	ions	• • •	•••			147
St. Luke's Hospital .	••	• • •				114
Cream		• • •				2
Biological tests for B.	tuberc	ulosis				702
Biological tests for B.	abortu	is				29
Veterinary samples for	B. tu	bercul	osis			261
						2,294

Of these samples 1,290 were examined by the method laid down in the Ministry of Health's memo. Foods/139. The following tables give a summary of the results obtained.

### DEPOT MILKS, 1932.

No. of samples		B. coli al	sent from	1	No. of o	U
examined 1.0 c.c. 0		0·1 c.c.	0.01 c.c.	0.001 c.c.	Less than 30,000	More than 200,000
Grade A.T.T. 70 Other sources 105	54·28% 40·95%		95·71% 92·39%	100% 98·1%	97·14% 88·57%	0.0%

Percentage of samples passing "Certified" Standard (the highest set by the Ministry of Health)—absence of B. coli in 0·1 c.c. and less than 30,000 organisms per c.c.:—

A.T.T. samples	 	 	85.71%
"Others"	 	 	80.95%.

# CITY "STREET" SAMPLES OF RAW MILK, 1932.

		No. of		B. Coli ab	sent from	
Source		Samples Examined	1.0 cc.	0·1 cc.	0.01 cc.	0.001 cc.
Within the City Outside the City	 	334 398	44·1% 34·67%		88·02% 78·64%	96·7% 90·2%

	 No. of	Orga	anisms per c.	с.
Source	Samples Examined	Less than 10,000	Less than 30,000	More than 200,000
Within the City Outside the City	334 398	67·44% 54·28%	82·33% 71·86%	2·1% 9·04%

Percentage of samples reaching "Certified" standard (the highest set by the Ministry of Health).

Within the City	 	 •••	66.22%
Outside the City	 	 	57.54%
Average all samples	 	 	63.66%

## CITY "STREET "SAMPLES.

# Percentage passing "Certified" Standard. Results for last Five Years.

	Within	n the City	Outsid	le the City	All S	Samples
Year	No.	Certified Standard	No.	Certified Standard	No.	Certified Standard
1928 1929 1930 1931 1932	290 $241$ $262$ $316$ $334$	$\begin{array}{c} 66 \cdot 56 \% \\ 70 \cdot 12 \% \\ 66 \cdot 02 \% \\ 76 \cdot 54 \% \\ 66 \cdot 22 \% \end{array}$	299 280 312 363 398	54·52% 59·92% 52·57% 59·23% 57·54%	589 521 574 679 732	60·62% 64·11% 60·61% 67·16% 63·66%
Total 5 yrs.	1,443	68·17%	1,652	56.66%	3,094	62.02%

15 of 16 " Certified " samples passed the standard for this grade.

2 of  $\ 2$  Grade A.T.T. samples passed the standard for this grade.

93.48% of 46 Grade A. samples passed the standard for this grade.

## " HEAT TREATED " MILKS, 1932.

	B. coli absent from					Organisms per c.c.				
No. Examd.	1·0 c.c.	0·1 c.c.	0.01 c.c.	0.001 c.c.	Less than 10,000	Less than 30,000	Over 200,000			
29	2.41%	41.38%	72.41%	86.21%	51.72%	62.07%	6.89%			

These figures are of interest when compared with those for the "raw samples," and are unsatisfactory.

#### ICE CREAM.

One hundred and twenty-two of the 125 samples of Ice Cream were of frozen cream as sold to the public. The results from these show a falling off from those obtained in 1931, and again emphasise the necessity of regulations for the control of this industry whose product remains a potential source of danger to the Public Health.

ICE CREAM.

			B. coli absent from					Bacteria per c.c.				
Year 1929	77	24.67%	51.92%	0·01 c.c. 67·53%	79.22%	0.0001 c.c. 88.31%	10,000	than 30,000 14·29%	Less t 100,000 20.78%	1 mill. 50.65%	Over 1 mill. 49·35%	
1930 1931 1932	75 111 122	70.25%	84.69%	91.89%	95.49%	97.30%	25·33% 34·23% 30·33%	34·67% 41·44%	42.97%	76.0% 82.88%	24·0% 17·12%	
Aver'ge	385	36.31%	64.16%	75.06%	82.86%	89.61%	24.93%	36.1%	46.75%	70.65%	26.75%	

#### WATER.

Tables showing the results of the routine examination of the water supplied to the City are given.

#### Bradford Water—Barden Moor.

## Percentage of Samples showing the presence of excremental B. Coli.

Absent from 100 cc  Present in 100 cc  10 cc  1 cc  0·1 cc  0·01 cc  No. of Samples	1927 2·0% 98·0% 75·6% 10·3% — 49	1928 8·8% 91·0% 33·3% — 46	1929 62·85% 37·14% 1·43% — — 70	1930 75·51% 38·0% 5·1% ————————————————————————————————————	1931 46·59% 53·41% 7·38% 0·57% — 176	1932 62·44% 23·14% 13·97% 0·44% ———————————————————————————————————
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#### BRADFORD WATER—THORNTON MOOR.

## Percentage of Samples showing the presence of excremental B. Coli.

	1927	1928	1929	1930	1931	1932
Absent from 100 cc Present in 100 cc 10 cc 1 cc		16% 84% 20%	70·38% 25·92% 3·70%	78·26% 17·38% 4·35%	Too few samples received for	85·0% 15·0% —
0·1 cc					analysis	
No. of Samples	22	25	27	23	11	20

# Bradford Water—NIDD Valley. Percentage of Samples showing the presence of excremental B. Coli.

		1020	102		1000	1	.001	1002
	сс	100·0% 84·0% 15·6%	47·82 52·28 4·36 —	%%%	88% 12% — —		91% -09% — —	89·41% 9·30% 1·29% —
No. of Samples		202	38		50		77	77
FOOD SUMMAR	y :							
Milk		•••			•••		2,29	94
Water	r—Bac	teriologica	ι1		•••		5.	15
	Bio	logical				•••		35
Ice C	ream	•••			•••		12	25
Lettuc	e				•••		]	12
Peas	tinned				•••	•••		1
Sweet	s				•••	•••		2
Shell-	fish	•••			•••		1,37	70
Water	cress						Ę	31
							4,38	 85
CLINICAL SPEC	IMENS	•						_
		iical Analy	ses:					
		n globulin					]	13
	alcium	_		•••	•••			58
		monoxide		•••				16
		dioxide co						1
	hloride				·		2	29
C	holest	erol					ç	33
C	reatini	ne					4	<b>4</b> 2
F	ouchet	's test					Ę	38
H	Iæmog	lobin						3
Id	cteric	index						7
N	on-pro	otein Nitro	ogen				22	27
F	hosph	ate						9
P	lasma	phosphata	ase					3
S	ugar						12	26
S	Sugar	tolerance	curves					34
		erum prote	ein	• • • •			1	13
	Irea						62	22
	Tric ac			•••		•••	]	12
V	'an de	n Bergh	•••	• • •	•••	• • •	5	59

Blood—Coagulation time	 	9
Counts complete	 	164
Cultures other than enteric	 	58
Films for differential count	 	92
Fragility test	 	1
Grouping	 	13
Body fluids	 	237
Cerebro-spinal fluids	 	3
Fæces—Bacteriological	 	116
Chemical Analyses	 	260
Parasites	 	9
Gastric Analyses	 	304
Hair for Ringworm	 	39
Histological sections	 	527
Post Mortems	 	155
Pus	 	279
Sputa	 	48
Urine	 	1,365
Urea concentration tests	 	131
Vaccines	 	91
Wool Sterility tests	 	239
		5,485

#### VII.—HOSPITAL ACCOMMODATION.

In the first portion of this report reference is made to the hospital accommodation of the City; in this portion further details of the hospitals under the control of the Local Authority are given.

## (A) MUNICIPAL GENERAL HOSPITAL.

REPORT BY HOLROYD SLATER, B.A., M.B., F.R.C.S., MEDICAL SUPERINTENDENT.

I have the honour to present the thirteenth annual Report on the working of the Bradford Municipal General Hospital for the year ended December 31st, 1932.

General comparisons for the last ten years are shown in the following table:—

		1932	1931	1930	1929	1928	1927	1926	1925	1924	1923
No. of Admissions	•••	7397	7078	6591	6915	7176	6707	6905	6565	6139	5608
No. of Live Births		923	826	789	702	654	539	592	485	466	463
No. of Operations		2562	2257	2117	2158	2219	1973	2249	2018	1824	1799
Average time in Hospital (in days)		34.1	34.8	37.2	35.6	34.5	29.9	30.4	28.7	31.4	32.5

Daily average number of in-patients throughout the year 776.5

No. of In-patients on Dec. 31st, 1931  No. of Admission during the year  No. of live births during the year	Civic. 488 6142 912	Public Assistance. 248 1252 11	Pensioner 3	s. Total. 736 7397 923
No. of In-patients on Dec. 31st, 1932 No. of Discharges and Deaths during	478	246	-	724
the year	7064	1265	3	8332  9056

The admissions were distributed through the Wards as follows:—
(The corresponding figures for 1931 are given in brackets.)

		Male.	Female.	Total.
Medical Wards	• • • •	1234 (1291)	1096 (1144)	2330 (2435)
Surgical Wards		1220 (1157)	1712 (1606)	2932 (2763)
Children's Wards		389 (400)	392 (304)	781 (704)
Maternity Wards			1354 (1176)	1354 (1176)
Live Births		467 (418)	456 (408)	923 (826)
		3310 (3266)	5010 (4638)	8320 (7904)
Live Births	•••	3310 (3266)	456 (408) 5010 (4638)	923 (826)

The admissions are shown in greater detail in the accompanying table.

TABLE SHOWING DISTRIBUTION OF ADMISSIONS THROUGH WARDS OF HOSPITAL AND MONTHS OF YEAR.

		T mbA mori		799	707	697	687	691	672	663	592	674	889	733	717	8320	Total Transfers	Total Admissions
ot 8	sters Vard ard	from /		94	92	70	50	64	82	89	61	70	64	72	83	854	Trai	Tc
sn Let	issio lospi ards	mbs I otni	Ī	893	783	767	737	755	754	731	653	744	752	805	800	9174	854	8320
Si	nen	C3		73	57	61	53	58	47	42	36	63	62	65	37	654	09	594
WARDS	Women	C1		52	51	41	61	43	56	48	25	58	64	53	44	596	50	546
SURGICAL	ď	A2		71	49	55	55	64	71	57	43	52	56	53	42	665	48	617
Š	Men	A1		59	09	26	44	41	28	51	59	52	41	47	41	549	26	523
		E3		1	લ	4	9	ಣ	ಸ	-	70	4	-	က	-	36	33	ಣ
		E2		87	71	63	09	56	56	49	55	49	9	84	93	783	102	681
	Women	El		33	29	97	24	18	25	23	22	24	27	28	28	307	25	282
so.	Wo	D3	]	30	31	33	25	37	25	21	21	26	22	31	16	318	27	291
MEDICAL WARDS		DZ		25	22	23	28	30	24	31	25	29	11	29	31	308	6	299
FEDICAL		င္သ		09	09	49	54	89	22	52	65	52	12	56	99	714	51	663
N.		F2		52	48	43	39	53	က	55	28	53	20	34	31	462	30	432
	Men	FI		29	33	35	28	34	33	12	22	13	13	35	3	318	14	304
	M	В		24	18	16	23	23	22	18	23	24	28	53	29	277	37	240
		A3		54	33	39	37	34	39	26	30	27	27	28	24	398	09	338
3,004	Wards	Н		_	14	25	11	16	20	53	+	10	19	20	11	176	15	161
Child	Wa	К1 & К2		75	61	45	25	58	99	59	35	52	47	09	56	629	6	620
Maternity	St	Birtl		22	64	87	92	64	72		85	79	73	20	100	923		923
Mate	suc	-bA oissim		06	80	96	91	42	85	84	104	77	92	80	119	1061	258	803 923
			1932	January	February	March	April	May	June	July	August	September	October	November	December	Total admissions into wards 1061 923	Total Transfers, ward to ward	Total admissions from outside

# TABLE SHOWING DISEASES FROM WHICH PATIENTS HAVE SUFFERED.

		_									
	Male	es	Fem	ales			Ma	les	Fen	ales	
Disease	under 16	over 16	under 16	over 16	T'tal	Disease	under 16	over 16	under 16	over 16	T'tal
Acute Infectious Disease: Cerebro-Spinal Meningitis Cerebro-Spinal Meningitis Pneumococceal Chicken Pox Diphtheria Dysentery Encephalitis Lethargica—Acute Chronic	1 2 3	1 1 1 - - 4	1   3 8		2 1 5 13 - 1 7	MALIGNANT—continued. Skin Spine Stomach Testicle Thigh Tibia Tongue Uterus Vulva		3 1 13 6 1 1 14 —		$ \begin{array}{c c}     \hline         & 1 \\         \hline         & 1 \\         \hline         & 1 \\         \hline         & 98 \\         & 2 \\         \hline         & 208 \end{array} $	4 1 32 6 2 1 14 98 2 316
Enteric Fever Epidemic Enteritis Erysipelas Influenza Malaria Mumps Measles	$\frac{1}{-\frac{1}{3}}$	1 3 25 —	2 - 1 2	$\frac{\frac{4}{4}}{\frac{24}{1}}$	82 7 50 -25	RHEUMATISM: Articular, Acute Articular, Subacute Chorea Non-Articular— Erythema Nodosum	$\frac{10}{6}$	9 9	5 12	13 33 6	37 42 24
Ophthalmia Neonato- rum Pemphigus Ringworm Scarlet Fever Tetanus	1 1 3 1	_ _ _ 1 1	3 -2 1 -10	_ _ _ _	4 1 5 4	Muscular		5 2 10 11	111111	1 2 4 26	1 4 14 37
Whooping Cough	30	38	34	39	23 141	Venereal Disease: Gonorrhœa Gonorrhœal Arthritis	<u>-</u>	9	17	10	19
TUBERCULOSIS: Pulmonary General Ankle Non-Pulmonary— Bladder Elbow Hip	1	88 1 — 3	12 - - - 3	30	132 2 — — — — —	Gonortheal Artmits Gonortheal Conjunctivitis Soft Chancre Syphilis, Acquired Syphilis, Congenital	3 - 2 - 5	10 10 20	4 - 3 - 7	9 - 19	$\frac{1}{\frac{7}{19}}$ $\frac{5}{51}$
Kidney Knee Lymphatic Glands Meninges Peritoneum Rihs Sacrum Skin		2 1 2 6 - 1 1 3	1 6 2 5 —	1 8 1 7 2 —	2 16 9 23 2 1 3 6	MENTAL DISEASES: Delirium Tremens Dementia Mania Melancholia				1 1 1 3	
Spine Sternum Testicle	 	$\frac{\frac{3}{1}}{2}$	33	52	1 2 214	Senile Decay Violence: Attempted Suicide by:	_	22	_	28	50
MALIGNANT: Bladder Brain Breast Colon Fauces. Femur Humerus Ileum Larynx Lip Liver Lymphatic Glands Lungs Mandible Œsophagus Ovary Pancreas Pelvic Bones Penis Peritoneum Pharynx Rectum Scrotum		1 1 1 13 2 - - 2 3 1 12 6 2 7 7 1 - 1 - 7 1		34 16 2 1 - - - - - - - - - - - - - - - - - -	1 1 34 29 2 1 2 1 2 1 3 6 13 12 2 10 4 5 7 7 7 8 19 19 19 19 19 19 19 19 19 19 19 19 19	Ammonia Aspirin Carbolic Acid Calomel Cut Throat Gas Jeyes' Fluid Lodine Liniment Luminol Methyl Alcohol Lysol Daraldehyde Zinc Blend  Nervous System Andlyopia Ammesia Blepharitis Carbonia Carlo Carbonia Car			1 2 1	1	1 1 7 20 1 1 1 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1

# TABLE SHOWING DISEASES FROM WHICH PATIENTS SUFFERED—continued.

TABLE SHOWING											
	Ma	les	Fen	nales			Ma	les	Fen	nales	
Disease	under 16	over 16	under 16	over 16	T'tal	Disease	under 16	over 16	under 16	over 16	T'tal
NERVOUS SYSTEM AND SENSE ORGANS—cont. Cerebral— Abscess Concussion Hæmorrhage Syphilis Thromhosis Tumour Conjunctivitis Convulsions Cyclitis Cyclitis Corneal Ulcer	1 1 1 4 3 1	1 4 1 40 1 16 2 2 - 1		$ \begin{array}{c c}  & 3 \\  & 49 \\  & 1 \\  & 11 \\  & 4 \\  & 7 \\  & - \\  & 4 \end{array} $	$ \begin{array}{c} 1 \\ 7 \\ 1 \\ 89 \\ 2 \\ 27 \\ 6 \\ 17 \\ 6 \\ 1 \\ 6 \end{array} $	RESPIRATORY SYSTEM:— continued. Pleurisy, Plastic Pleurisy with Effusion Pneumonia, Hypostatic Pneumonia, Lobar Pulmonary Embolism Silicosis Hæmoptysis  CIRCULATORY SYSTEM: Addison's Disease Anzemia Simple	2 1 27 - - 92	$ \begin{array}{c c} 28 & 5 \\ 5 & 1 \\ 90 & - \\ \hline 1 & 4 \\ \hline 370 & 1 \\ 1 & 1 \end{array} $	- 1 10 - - 52 -	13 3 2 58 1 - 2 214 - 16	43 10 3 185 1 1 6 728
Dachryocystitis Deflected Septum Nasi Dementia Disseminated Sclerosis Epilepsy Explepsy Jacksonian. Exophthalmic Goitre Fibroma, Intrathecal Glaucoma G.P.I	2     3	7 25 1 1 4	1 - 1 1 1 1 1	2 3 4 13 -2 -3	2 3 11 42 1 3 5	Anæmia, Simple Anæmia, Pernicious Anæmia, Plastic Aneurysm— Aortic Arterio-Sclerosis Banti's Disease Epistaxis Gangrene, Senile Gangrene, Diabetic Hæmophylia		9 1 3 12 - 4 7 3 1		6 1 4 5 3 2	$ \begin{array}{c} 15 \\ 1 \\ 4 \\ 16 \\ \hline 9 \\ 10 \\ 5 \\ 1 \end{array} $
Hemiplegia Herpes Zoster Hypertrophied Turhinate Hysteria Insomnia Iritis Keratitis Little's Disease Locomotor Ataxy Malformed Epiglottis	1 1	31 1 1 - 2 1 - 11 -	1 - 1 - 1	22 6 2 5 1 4 4	55 9 3 7 1 2 6 - 15	Hodgkin's Disease Hyperpiesis Leukemia Lymphadenoma Morbus Cordis Phlehitis Purpura Raynaud's Disease Varicose Veins	1	$ \begin{array}{c}  -12 \\ 1 \\ 2 \\ 141 \\ -1 \\ 17 \\ -17$	1 - - - 1 - - 2	$\begin{array}{c} 2\\11\\-\\121\\7\\-\\1\\13\\\hline192\\\end{array}$	$ \begin{array}{c} 3 \\ 23 \\ 1 \\ 2 \\ 263 \\ 7 \\ 2 \\ 30 \\ \hline 412 \end{array} $
Mania Mania Mastoiditis Meibomian Cyst Meniere's Disease Meningitis, Acute Meningitis, Chronic Meningitis, Pneumococcal Meningism Meningocele Myelitis Meningocele Myelitis Neuralgia Neuralgia Neuralgia, Trigeminal Neurasthenia Neuritis-Peripheral Otitis Media Paralysis Agitans Paralysis Facial Paralysis Facial Paralysis, Infantile Paraplegia, Plastic Poliomyelitis Sinusitis, Antral Spina Bifida Still's Disease Strabismus Vertigo	4 -3 3 1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -	1 5 - 2 1 1 1 1 2 1 6 6 9 9 2 2 1 1 7 7 1 6 6	7   12     2	3 3 1 1 1 1 1 1 1 1 1 3 3 3 5 5 7 ? 1 1 2 2 1	19 1 - 8 1 1 3 - 1 2 2 3 49 14 1 1 1 1 1 1 2 2 1 1 2 2 4 8	DIGESTIVE SYSTEM: Appendicitis, Acute Appendicitis, Actre Appendicitis, Chronic Biliary, Fistula Cholecystitis Cirrhosis—Liver Colitis, Mucous Colitis, Mucous Colostomy Constipation Dental Caries Diaphragmatic Hernia Diarrhoea Dilatation of Stomach, Acute Duodenal Ulcer Duodenal Ulcer, Perforated Dyspepsia Dysphagia Enteritis Fissure, Anal Fistula, Biliary Foreign Body in	6 20   -   -   -   -   -   3 1 1 3 3 -   -   -   4 4 -   -   -   -   -   -	54 92 4 6 32 6 1 18 5 7 1 17 17 9 	19 8 —	48 143 1 23 3 33 5 5 2 2 5 1 2 1 1 9	127 263 1 27 9 67 111 3 5 44 9 17 7 2 90 17 14 1 19 3 3 1
Wound of Scierotic  RESPIRATORY SYSTEM: Abscess of Lung Bronchial Asthma Bronchiectasis Bronchitis, Acute Bronchitis, Chronic Broncho-Pneumonia Coryza Empyema Laryngitis	$ \begin{array}{c c}  \hline  & & \\  \hline  & & \\  \hline  & & \\  & & \\  & & \\  \hline  & & \\  $	$ \begin{array}{c}                                     $	56 - 17 - 22 - 1	2 	8 1 529 4 46 5 92 206 105 13 14 2	Foreign Body in Stomach Gall Stones Gastric Ulcer Gastric Ulcer, Perforated Gastroitis Gastroptosis Gingivitis Glossitis Hæmatemesis Hæmorrhoids Hepatic Abscess	4 - 3 4 - 1 1	-7 24 5 35 2 1 - 12 36 -	1 - 4 2	1 18 4 1 - 5 19 6	5 48 39 6 60 12 2 1 1 17 55 6

# TABLE SHOWING DISEASES FROM WHICH PATIENTS SUFFERED—continued.

	Ma	les	Fem	ales			Ма	les	Fem	ales	
Disease	under 16	over 16	under 16	over 16	T'tal	Disease	under 16	over 16	under 16	over 16	T'tal
DIGESTIVE SYSTEM—  continued  Hepatitis  Hyperchlorhydria Icterus Neonatorum Intestinal Obstruction, chronic  Intestinal Obstruction, acute Intussusception Ischio—Rectal Abscess Jaundice—catarrhal Jejunal Ulcer Marasmus Melana		$ \begin{array}{c}                                     $	1 - - - 1 1 10	$-\frac{1}{1}$ 9 $\frac{5}{2}$ $\frac{12}{12}$ $\frac{1}{1}$	$ \begin{array}{c} 1 \\ 1 \\ 1 \\ 17 \\ 10 \\ 1 \\ 16 \\ 20 \\ 1 \\ 25 \\ 4 \end{array} $	GENITO-URINARY SYSTEM—continued. Nephritis, Chronic Orchitis Oxaluria Ovarian Cyst Ovaritis Papilloma of Bladder Papilloma of Vulvæ Paraphimosis Pelvic Cellulitis Perinephric Abscess Periurethral Abscess. Phimosis Prolapse of Uterus	2       2	25 12 3 - 2 4 - 5 8	1	$ \begin{array}{r} 24 \\ \hline 3 \\ 14 \\ \hline 1 \\ \hline 2 \\ \hline 9 \\ \hline \hline 68 \end{array} $	52 12 6 14 1 2 2 6 9 
Pancreatitis	1 - - - - - - - - - - - - - - - - - - -	1 1 2 3 1 2 1 1 1 1 1		9 - 1 1 - 2	11 $2$ $15$ $1$ $1$ $3$ $9$ $1$ $1$ $2$ $1$ $3$ $2$ $1$ $3$ $2$	Prolapse of Overty Prostatic Enlargement Prostatitis, Acute Pruritis Vulvæ Pyelitis Pyonephrosis Pyosalphinx Renal Colic Retroverted Uterus Ruptured Perineum Ruptured Urethra Salpingitis Scrotal Abscess Sterility Stone in— Bladder		48 1 2 14 1 1		6 	6 48 1 2 9 1 4 22 29 11 — 27 1 1 3
Stricture of Æsophagus Stricture of Rectum Subphrenic Abscess Tape Worm Thread Worms Ulcer of Cæcum Ulcer of Tongue Visceroptosis		1 1 - 1 1 1 1 - 506		$ \begin{array}{c c} 1\\3\\1\\-\\-\\10\\\hline 493 \end{array} $	2 4 1 2 1 1 10 1142	Kidney Ureter Stricture of Urethra Subinvolutionof Uterus Torsion, Speramatic Cord Undescended Testicle Uræmia Urethritis Ulcers of Scrotum Vaginitis	1 - - 7 - -	1 5 1 34 - 1 1 2 1		9 - 2 1	1 15 1 34 2 1 8 1 2 1 2 2
Genito-Urinary System: Amenorrhœa Balanitis	_	<u>_</u>	=	1	1 3	Varicocele Vulvitis	55	$\frac{2}{-}$ $\frac{2}{222}$	- - 5	$\frac{-1}{486}$	$\frac{\frac{2}{1}}{768}$
Bartholin's Cyst Caruncle, Urethral Cervical Erosion Coccydinia Cyst of Vagina Cyst of Vagina Cystosel Diverticulum, Bladder Dyspareunia Dyspareunia Endometritis Enuresis Fibroids Uterus Fistula, Recto-Vaginal Fistula, Vesico Vaginal Fistula, Urethral Hæmaturia Hydrocele Hypernephroma Hypospadias Kinked Ureter Leucorrhæa Menopause Menorrhagia Metorrhagia Metorrhag				$\begin{array}{c} 199 \\ 3 \\ 16 \\ 1 \\ 1 \\ 24 \\ \hline \\ 10 \\ \hline \\ 19 \\ 3 \\ 1 \\ 15 \\ 4 \\ 4 \\ 36 \\ 1 \\ 2 \\ \hline \\ -1 \\ 1 \\ 1 \\ 35 \\ 32 \\ 2 \\ 2 \\ 2 \end{array}$	19 3 16 1 1 1 44 1 1 1 1 1 1 1 1 1 1 1 1 2 1 5 6 6 3 6 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	SKIN:  Bedsores Boils Callosities Foot Carbuncle Dermatitis—acute Dermaititis—chronic Dermoid Cyst Eczema Impetigo Intertrigo Lichen Planus Nævus Papilloma Paget's Disease Pediculosis Pruritis Ani Scabies Sebaceous Cyst Sebaceous Cyst Seborrhea Sycosis Ulcer of Leg Onychia			1 15 2 2 - - - 2	55 1 1 1 1 9 2 9 1 1 3 - 1 1 1 1 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1	5 14 1 19 3 29 2 23 39 1 1 3 3 1 - 3 6 2 2 2 2 3 3 9 1 2 1 2 2 2 2 3 3 2 9 2 1 2 1 5 2 1 5 2 1 5 2 1 2 2 2 2 2 2 2

# TABLE SHOWING DISEASES FROM WHICH PATIENTS SUFFERED—continued.

TABLE SHOWING	0131	ASE	.5 1.1	01/1	******	011 1 111111111111111111111111111111111			0071		·····
	Ma	les	Fem	ales			Ма	les	Fem	ales	
Disease	under 16	over 16	under 16	over 16	T'tal	Disease	under 16	over 16	under 16	over 16	T'tal
OTHER DISEASES: Abscesses		15   4   4   1   4   1   4   1   1   26   6   2   5   3   4   1   1   1   1   1   1   1   1   1	3 - 7 6 31 1 1 1 2 1 1 1 2 1 1 1 2 1 1 1 1 1	9 1 1 1 1 1 10 10 2 1 1 16 12 2 - 30 30 1 4 - 1 1 2 - 1 20 1 16 3 1 1 1 1 1 1 2 - 5 - 5 - 2	$\begin{array}{c} 34\\2\\1\\18\\2\\2\\73\\1\\1\\1\\2\\2\\5\\1\\3\\2\\6\\6\\5\\8\\3\\1\\1\\1\\1\\1\\5\\3\\1\\1\\2\\9\\4\\2\\0\\0\\1\\1\\1\\1\\1\\1\\1\\1\\1\\1\\1\\1\\1\\1\\1\\1\\1$	OTHER DISEASES—cont. Ganglion Genu Valgum Genu Valgum Hallux Valgus Hammer Toe Hare Lip Hernia: Diaphragmatic Femoral Inguinal Umbilical Ventral Inguinal Ventral Inguinal Inguinal Inguinal Ventral Inguinal Inguinal Ventral Inguinal In	1 1 3 3	1	3 2 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 3 3 3 - 6 11 1 8 4 2 2 5 - 6 1 1 1 1 1 1 5 1 1 1 1 1 1 5	27 64 61 18 110 3 13 13 5 2 8 11 61 11 7 7 2 1 61 12 2 2 8 1 1 1 2 1 1 1 2 1 1 1 1 1 1 1
DISEASES	AND	AC	CIDI	SNIS	5 CO	NNECTED WITH CI	1111	BEA	KIN	G	
Abortion Albuminuria Ante Partum Hæmorrha Bronchitis, acute Cholecystitis Chorea Contracted Pelvis Death of Fætus Diabetes Exophthalmic Goitre Epilepsy Fibroids of Uterus Hæmoptysis Hyperemesis Hyperemesis Hyperthyroidism Galactocele Jaundice Mastitis, Acute Mania	. ge				$ \begin{array}{c} 197 \\ 14 \\ 3 \\ 2 \\ 1 \\ 1 \\ 53 \\ 1 \\ 6 \\ 2 \\ 1 \\ 1 \\ 1 \\ 41 \\ 1 \end{array} $	Miscarriage Miscarriage (threaten Morbus Cordis Ovarian Cyst Ovarian Tumour, ma Pblebitis Placenta Prævia Pneumonia, Lobar Puerperal Pyrexia Puerperal Fever Pyelitis Phlegmasia Alba Dol Retained Placenta Retroverted Gravid I Ruptured Tubal Gest Salpingitis, acute Toxæmia Varicose Veins	lignan ens Jterus				

## SURGICAL DEPARTMENT.

The number of operations performed during 1932 was 2,562, as compared with 2,295 last year. The operation death rate was  $4\cdot3$  per cent. The various forms of anæsthesia employed and the number of operations performed under each are shown in the following table:—

	Laparoto- mies	Other Operations	Total
Spinal—(Stovaine or Spinocaine)	. 330	235	565
Spinal—Avertin	. 68	5	73
Avertin—Open Ether	. 60	52	112
Avertin—Gas and Oxygen	. 31	16	47
Rectal Ether	.   —	11	11
Local Infiltration (Novocaine and Cocaine)	. 12	115	127
General (Ether, Chloroform, Gas)	990	1,307	1,627
Totals	. 821	1,741	2,562

Nature of Operation						
Appendicectomy, acute	Nature of Operation	Recovered	Died	Nature of Operation	Recovered	Died
Resuture Urachal Cyst	Exploratory For Subphrenic Abscess For Tuberculous Peritonitis For General Peritonitis For Intestinal Adhesions	$\begin{bmatrix} \frac{2}{6} \\ -\frac{3}{4} \end{bmatrix}$	1	Appendicectomy, acute Appendix Abscess—drained Appendicectomy, chronic Total SMALL INTESTINES:	7 265	5
Name	Resuture Urachal Cyst Resuture Lumbar ganglionectomy	$\frac{1}{2}$	=	Bands For acute obstruction by Intussus- ception	1	1
Total	Herniæ: Radical Cure—umbilical	5		ostomy For acute obstruction by Iliocolostomy For acute obstruction by Jejunal	1	=
Stomach: Gastrectomy, for Gastric Cancer Gastrectomy, for Gastric Ulcer Gastrectomy, for Gastric Ulcer Gastrectomy, for Gastric Ulcer Gastrojejunostomy Posterior for Duodenal Ulcer	Radical Cure—ventral	7	_1	For acute obstruction by Rupture of Jejunum For acute obstruction by Strangulated		_
Cholecystotomy   Cholecystotomy   Castrojejunostomy   Castrojeju	Gastrectomy, for Gastric Cancer Gastrectomy, for Gastric Ulcer		3	Total	1	_
CastroDuodenostomy   1	Gastrojejunostomy Posterior for Gas- tric Ulcer Gastrojejunostomy Posterior for Gas-		2	Cholecystotomy For Ruptured Gall Bladder	10 1 ——	1
For Perforation of Duodenal Ulcer   1   10   Cæsarian Section for Transverse Lie   1	GastroDuodenostomy Gastroplication Gastrostomy	1		Uterus and Appendages: Cæsarian Section for Contracted Pelvis	41	
Total	For Perforation of Duodenal Ulcer For Perforation of Gastric Ulcer	11 2	$\frac{10}{3}$	Cæsarian Section for Transverse Lie Cæsarian Section for Placenta Prævia Cæsarian Section for Toxæmia	1 4 1	
Colostomy	Large Intestines:			Hysterectomy—Sub-Total Myomectomy Oophorectomy and Salpingectomy	17 4 22	3 -
Total 21 5 Total 165 9	Cæcostomý (Closure of) Colostomý	2 14 1 —	2	Ruptured Éctopic Gestation Ruptured Uterus, sutured Prolapsed Ovaries	14 2 1	
	Resection, Ulcer of Cæcum		5	Total		

## SURGICAL DEPARTMENT—continued.

		Recovered			ed	
		er	ģ		Recovered	멎
Nature of Operation		30	Died	Nature of Operation	000	Died
		Şe			👸	_
	]		}		<u> </u>	
HERNIOTOMIES:	- 1		1	Nose, Throat and Chest:		
Radical Cure—Femoral Hernia Radical Cure—Inguinal Hernia		9	_	Mastoidectomy—Radical Mastoidectomy—Conservative	11	_
Radical Cure—Inguinal Hernia		87	1		8	1 1
For Strangulated Hernia—Femoral		6	1 2	Oesophagoscopy Resection—Septum Nasi	1 1	1
For Strangulated Inguinal Hernia		3		Thyroidectomy	2	
TOTAL HERNIOTOMIES		105	4	Tracheotomy	8 1 4 2 2 4	<u></u>
				Turbinectomy	4	_
GENITO-URINARY:				For Carcinoma of Lip—Radon	1 3	_
		1	—	For Carcinoma of Tongue—Radon For Carcinoma of Glands of neck—	3	_
Circumcision Colporrhaphy		43 16	_	Radium	1	_
Colpotomy (Pelvic Abscess)		2		For Empyema—Chest drainage	17	2
		$\tilde{4}$	_	For Empyæmia— Gotlander's Oper-	~ .	
		174	_	ation	1	_
		32		For Empyema Antrum of Highmore For Hare Lip—Cleft Palate For Nasal Polypi	3 4 2 1 2	_
Cystotomy, Supra Puble		15	5	For Nasal Polymi	4	
Dilatation of Cervix		$\frac{1}{7}$		For Retropharyngeal Abscess	1	
Forceps Delivery		44	l —		$\hat{2}$	_
Induction of Premature Labour		12	_	For Tonsils and Adenoids For Torticollis	113	_
Lithotomy, Supra Pubic		1	_	For Torticollis	9	-
	···	1 4 1	_		100	
Nephrolithotomy	···	6		Totals	189	5
Orchidectomy	:::	$\frac{6}{4}$	_	Eyes:		
		î	-	Excision Eyeball	1	_
Pelvic Examination		23	_	Iridectomy	1 1 11	_
refineoffhaphy		84	_ _ _ 1	Tor Cataract	11	_
Plastic Operation on Vagina	···	$\frac{1}{3}$	_	For Corneal Ulcer	4	_
Prostatectomy—Supra Pubic		8	1	For Entropion	1	
Radical Cure—Hydrocele		11		For Scar—Conjunctival	î	_
Radical Cure—Varicocele		11 2 3	_	For Squint	$\frac{1}{30}$	_
Resection of Cervix Uteri		3	_	For Stenosis Lachrymal Ducts	5 2	_
Resection Carcinoma of Bladder	···	1 5 12	_	For Glaucoma	2	_
	···	10		For Meibonian Cyst	1	_
For Bifid Vagina		1.		Totals	61	
For Carcinoma of Cervix Uteri Radiu	m	$2\hat{9}$	_			
For Epithelioma Vulvæ—Radon		3	-	Excisions:		
For Erosion of Cervix		$\begin{array}{c} 2\\1\\2\end{array}$	_	Adenoma Breast Adenoma Thyroid	12	_
		1	3		1	_
For Paraphimosis		1 :		Bursa, Olecranon	1 1 1	_
For Perineal Abscess		$\frac{1}{3}$	_	Callosity, Sole	î	_
For Polypus Cervix		5	<u> </u>	Chronic Ulcer of Iaw	î	_
For Retained Products of Conception For Cyst of Vagina	on	137	5	Coccygeal Cyst	1	_
		1	1	Coccygeal Cyst	2	_
	:::	î		Cyst of Finger Dermoid of Orbit	1	
For Urethral Caruncle		4	Ξ	Epithelioma of Ear	î	_
For Urethral Calculus For Urethral Stricture—Dilatation		1	_	Epithelioma of Lip	1	_
For Urethral Stricture—Dilatation		21	3	Fibroma	1 1 2 2 1 1 1 1 3	_
For Urethral Stricture—Wheelhou Operation		4	2	Galactocele	1	_
T 37		4		Ganglion	3	
- Games a location and				Glands, Lymphatic Malignant		1
Total		739	20	Glands, Lymphatic Malignant Glands, Lymphatic Tuberculous Keloid Scar	18	_
Promise					1	-
RECTUM: Excision for Cancer			1	Lipoma	4	_
Sigmoidoscopy	:::	9	1	Meningocele Nævus	1	_
For Carcinoma—Radium		2 2 7 1	_		1	
For Fissure	[	7	_	Nouve Ext Conhonous	î	_
For Fistula		1	_	Papillomata	2	
For Polypus		13	3	Popliteal Cyst	1	-
		35		Prepatellar Bursa	1	
F - D1		4		Sacrococcygeal Cyst	1	
		1	_		18 1 4 1 1 1 1 2 1 1 2 1	
				Sarcoma of Thigh Sebaceous Cyst	1	
Totals		67	4	Sebaceous Cyst	6	_
	1			Sympathetic nerve bank-neck	1	

# SURGICAL DEPARTMENT—continued.

Nature of Operation.	Recovered	Died	Nature of Operation.	Recovered	Died
Excisions—continued. Thyroglossal Cyst Tumour of Buttock Varicose Veins Ulcer of Heel Umbilical Sinus  Totals	$\frac{1}{1}$ $\frac{1}{1}$ $\frac{1}{79}$	- - - 1	Bones and Joints—continued.  For Necrosis Tibia  For Necrosia Ulna  For Tuberculosis Hip  For Tuberculosis Knee  For Tuberculosis Spine  For Tuberculosis Sacrum  For Tuberculosis Rib	1 3 1 2 1 3	
AMPUTATIONS: Arm Breast, Cancer Finger Leg Supernumerary Digit	1 7 2 1 2 4		For Osteomyelitis, acute	3 4 2 5 128	- - - 1
Thigh Totals Bones and Joints:	19	3	Abscesses Avulsion of Nail Blood Transfusion Burns, Severe Bursitis, Suppurating Carbuncle	47 8 2 1 3 17	_ _ _ _ _ 1
Arthrodesis Ankle	1 1 9 1 14	111111	Cellulitis	24 1 1 115 1 1	1
Osteotomy Pegging, Plating and Wiring Fractures Reductions of Fractures Reduction of Dislocation of Hip (Congenital) Reduction of Dislocation of Mandible Reduction of Dislocation of Shoulder	12 2 13 6 1 2		Gasserian Ganglion, injected and Alcohol	1 55 5 2 4	111111
Reduction of Dislocation of Elbow Resection of Exostosis Resection of Sarcoma of Tibia Resection of Semilunar Cartilage of knee Resection of Tarsus Sequestrotomy	1 3 1 15 1 7		Skin Graft Stitch Abscess Stretching Sciatic Nerve Tendon Lengthening Tendon, Transplantation Tenotomy	1 1 1 2 2 8	11111
Tarsectomy Trephining Depressed Fracture of Skull For Ankylosis For Hammer Toe For Hallux Valgus For Necrosis Phalanx	1 1 3 3		Varicose Veins—Injection Trigeminal Neuralgia Total Miscellaneous Total Operations	$   \begin{array}{r}     9 \\     \hline     1 \\     \hline     314 \\     \hline     2562 \\     \hline     \end{array} $	2 112

#### MATERNITY DEPARTMENT.

The atten	dances at	the	Hospital	Ante-	-Natal	Clinic	numbered:-	
New	Patients						1219	
Other	·s						3792	
							5011	

In the Maternity Wards there were 923 live births and 80 stillbirths. The proportion of stillbirths was 7.9%, as compared with 8.1% last year, and 8.7% in 1930.

There were 7 Maternal Deaths.

Cæsarian section was performed on 49 occasions, 42 for Contracted Pelvis, 1 for Fibroids obstructing labour, 1 for Transverse lie, 4 for Placenta Prævia, and 1 for Toxæmia.

ABNORMALITIES IN LA	BOI	TR.				,
Cause.		,,,,,		Nu	mber.	С
Perineal Lacerations	_					Induction of
Forceps	•••	•••		•••	18	Albumin
Spontaneous	•••	•••	•••	•••	64	Eclamps
Contracted Pelvis-						Epilepsy
Cæsarian Section					42	Heart D
Forceps					3	Post Ma Previous
Craniotomy					4	Small Pe
Induction					8	
Forceps Cases—						Cases of Pa
Eclampsia					1	Transfer
Fœtal distress					7	Mastitis-
Maternal Distress		•••		•••	5	Cases of O1
Prolapse of Cord					1	Cured (N
Prolonged second					19	Infants not
Unreduced Occipi	to F	osterior	•••		4	Debility
Uterine Inertia	•••	•••	•••	•••	7	Sectio
				_		Mamma
		Total	•••	•••	44	Septicær
Abnormal Presentati				_		Lactatio
T.					2	1
Breech					43	Maternal a
Transverse					5	Septicæ
Prolapsed Cord					4	Maternal a
•					-	Toxæmi
Abnormalities of Mo Uterine Fibroids					9	Ante Pa
Hydramnios	•••	•••	•••	•••	$\frac{2}{3}$	Erysipel
Rigidity of Cervix	,				3	Maternal a
Retained Placents			•••		4	Pregnan
Retained Chorion		•••			8	
Secondary Uterin					7	Stillbirths-
Discours of Modles						Ante-pa
Diseases of Mother— Venereal Disease					33	(a) P: (b) A:
Jaundice	•••		•••		2	Asphyxi
Heart Disease	•••	•••	•••		$\tilde{6}$	Cranioto
Phthisis					$\tilde{2}$	Eclamps
Bronchial Asthma	a				1	Hydroce
Pneumonia	•••	•••	•••		2	Induction
Epilepsy			•••		4	Coal Ga
Phlebitis					4	Brow (F
Chorea			•••		$\overline{2}$	Prolong
White Leg	•••	•••	• • •	•••	1	Prolapse
Pleurisy	•••	•••		•••	1	Attemp
Tetany	•••	•••	•••	•••	1	admis
Toxæmias—						Mitral o
Eclampsia					5	Monster
Albuminuria				•••	59	Cause U
Hæmorrhage-						Cause 0
Ante Partum			•••		5	
Accidental					21	
Placenta Prævia		•••	•••	•••	9	

Cause. Induction of Labour—			Nu	mber
Albuminuria				5
Eclampsia and Toxaen Epilepsy	nia	•••	•••	5 1
Heart Disease				3
Post Maturity		•••		7
Previous Difficult Lab Small Pelvis	our 	•••	•••	3 8
Cases of Puerperal Sepsis		•••	•••	0
Transferred	— 			14
Mastitis—Acute		•••	•••	9
Cases of Ophthalmia Neon	atorum-			
Cured (Mild Cases)	•••	•••	•••	3
Infants not entirely Breas	t Fed-			
Debility of Mother d Section	ue to (	Caesaria	an	2
Mammary Abscess				9
Septicæmia Lactation not fully est				1
Lactation not fully est	ablished	i	•••	11
Maternal deaths due to A				
Septicæmia following	Normal	Delive	гу	1
Maternal deaths due to di				
Toxæmia (Acute Yellov Ante Partum Hæmorr		ay of Li	ver)	1 4
Erysipelas following m		ge		1
Maternal deaths due to di	seases i	ncidente	ıl to	
Pregnancy		•••	•••	0
Stillbirths—				
Ante-partum Hæmorri (a) Placenta Prævia	nage du	e to:—	-	7
(b) Accidental Hæm	orrhage			10
Asphyxia			• • • •	1
Craniotomy Eclampsia in Mother	•••	•••	•••	4
Hydrocephalus, Spina	Bifida, N	Ieningo	cele	7
Induction of Labour		• • •	•••	3 7 3 1
Coal Gas Poisoning—I Brow (Face) presentat				2
Prolonged Second Sta	ge (larg	e fœtus	)	6
Prolapsed Cord Attempted forceps de	liver	hofora		5
admission	nvery	before		3
Mitral disease of mo		orceps		_
extraction Monster—Anencephal		•••	•••	$\frac{1}{3}$
Cause Unknown				$\frac{3}{24}$
(23 of these w		erated)		
	Total		-	80
	20.01			

Ma <sup>1</sup> presentations—		I Continued for	an han	vious solu		
Cause.	Number.		ause.	rous coiu	mn.	Number.
Breech	$\begin{array}{ccc} & 43 \\ & 2 \end{array}$	Anencepha Hydroceph	lus	•••		3 6
Brow (Face) Obstructed Labour—(large fœtus)	4	Meningoce!	le			1
Premature Prolapsed Cord	144	Spina Bifid	ia	•••		3
Transverse Hand Prolapsed	5 1				otal	46
DEATHS OF INFANTS WITHIN 10 DAYS OF BI	RTH	Cases of Cor Cleft Palat	e and	al Defoi Hare Lid	RMITY.	1
Prematurity	21	Talipes Spina Bific				1
Broncho-Pneumonia Congenital Heart Disease	1 1	Monster—A	Anence	phalus		3 3
Asphyxia Neonatorum	1	Hydroceph Meningocel	alus			6 1
Cellulitis Arm Malæna Neonatorum	1	Cases of Bir			•••	1
Atelectasis		Fracture o	f Femi	ır		1
Convulsions Septic Meningitis	4 2 1	Fracture of Cephalhæm				3
RADIOLO	GICAL	DEPAR	TMI	ENT.		
During 1932 the follo	owing	examinati	ons	and	treatmen	t were
effected: (Last year's fig	_					
Radiological Examinations		• • • •			2706	(2455)
Treatments by:—						
Deep X-Rays		•••	• • •		185	(239)
Superficial X-Rays	• • •	•••	•••	• • •	17	(87)
Diathermy			• • •	•••	5	(14)
Ultra-Violet Rays					10,011	(9735)
Clinical Attendances		•••			1254	(1340)
Operations under General Ai	næsthes	ia		•••	14	(13)
Operations under Local Ana	esthesia				11	(31)
Dressings for Out-patients		•••			1853	(1736)
Films used		•••			6890	(6528)
RADI	UM DE	PARTMI	ENT			
New patients treated						50
Abandoned trea	tment				5	
		•••		•••		
Died of other c	auses	•••	•••	•••	1	
						6
						44
Of the above 44, 36% ha	we now	no eviden	ce of	disaa	50	
, , , ,						
, , , , , , , , , , , , , , , , , , , ,	re impre	oved, but	Still	requir	e treatme	
Out-patients	• • •	•••	• • •	• • •	•••	67
Remarks.—During 193	1, 59%	of case	s w	ere fi	t for pa	alliative
treatment only; 33% were a	live and	i well at i	the b	eginni	ing of 19	933.
During 1932 the type of				_	-	
				attitett	improv	cu, and
in only 25% was the treatme	ent palli	ative only	•			
Radon Seeds.						
Number of seeds ma	ade		45	39		
Total amount of Ra	don ou	tput	1.09	1 mill	icuries.	
		•	,			

#### DEATHS.

There have been 1,013 deaths in Hospital during the year, as compared with 962 in 1931. The relation between the ages of patients and the number of deaths is shown in the subjoined table:—

Years of age	-1	1-2	2-10	10–16	16-20	20-30	30-40	40-50	50–60	60-70	70-80	80–90	90-100
Num- ber of Deaths	75	6	15	9	16	50	61	81	191	248	191	63	7

## THE CAUSES OF DEATH AT ALL AGES HAVE BEEN:-

Addison's Disease					
Addison's Disease		S	S		
Addison's Disease		ar	ar	=	a a la
Addison's Disease		nd ye	ye	ot	t   ye v   ye
Addison's Disease		D 20	0 9	Ξ	
Addison's Disease					
Anemia, Aplastic		1 —			
Aneurysm, Aorta		1 —			Hydrocephalus 1 — 1
Amesthetic, Gas and Oxygen		<b>—</b>	1	1	Hyperthyroidism — 1 1 1
Anashtetic Chloroform		<b>—</b>			T to 1 1 0 1 0 1 0 1 0 1
Appendicitis, acute   2   8   10   Ischio-Rectal Abscess   — 3   3   3   Appendicitis, chronic   — — — — Locomotor Ataxy   — 8   8   Arterio-sclerosis   — 23   23   Malignant Disease of:   — 1   1   1   1   1   1   1   1   1		1	T		
Appendicitis, chronic		5			Isobio-Rectal Absons
Artecrossis				1 10	
Atelectasis	4 T T T T T T T T T T T T T T T T T T T		23	23	
Banti's Disease	4 4 4 4 4				
Bronchitectasis	Dankilla Dianana	_	1	1 i	
Bronchitis, chronic	Bronchiectasis	I —			Breast — 9 9
Broncho-Pneumonia		I			
Broncho-Pneumonia			25		
Burns		1.5	2		Humerus 1 1 1
Carbuncle	D.				1 1 1 1 1 1
Cellulitis					T
Crestrial Abscess	C-111141-	1			1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Cerebral Abscess         1         1         2         Mediastinum         — 2         2         2         Cerebral Hæmorrhage         — 65         65         Oesophagus         — 11         11         11         Cerebral Tumour         — 15         15         15         Ovary         — 5         5         5         Cerebral Tumour         — 4         4         4         Pancreas         — 7         1         1         1	0 : 0 ::	1 _			
Cerebral Hæmorrhage         — 65         65         Oesophagus         — 11         11         11         11         12         Cerebral Tumour         — 55         5         5         5         5         5         5         5         5         5         5         5         5         5         7	C11 41	1		$\frac{1}{2}$	35 31 41
Cerebral Thromhosis.         —         15         15         Ovary         —         5         5         5         Crerbral Tumour         —         4         4         Pancreas         —         7         7         7         Cholecystitis         —         2         Rectum         —         1         1         2         2         2         Rib         —         1         1         2         2         Rectum         —         1         1         2         2         2         Rectum         —         1         1         2         2         Rectum         —         1         1         2         2         Rectum         —         1	C1 1 TT 1	-	65	65	
Cholecystitis	Cerebral Thromhosis	1			Ovary 5 5
Coal Gas Poisoning, Suicidal         —         3         3         Prostate         —         3         3           Colitis, Ulcerative         —         1         1         Rectum         —         15         15           Convulsions         2         —         2         Rib         —         1         1           Cut Throat, Suicidal         —         1         1         Skin         —         1         1           Cystitis         —         1         1         Stomach         —         2         2         2           Disseminated Sclerosis         —         1         3         13         Supra-Renal         —         1         1         Duodenal Ulcer, perforated         —         9         9         Uterus         —         1         1         Duodenal Ulcer, perforated         —         9         9         Uterus         —         17         18		I —			Pancreas 7 7
Coal Gas Poisoning, Suicidal         —         3         3         Prostate         —         3         3           Colitis, Ulcerative         —         1         1         Rectum         —         15         15           Convulsions         2         —         2         Rib         —         1         1           Cut Throat, Suicidal         —         1         1         Skin         —         1         1           Cystitis         —         1         1         Stomach         —         2         2         2           Disseminated Sclerosis         —         1         3         13         Supra-Renal         —         1         1         Duodenal Ulcer, perforated         —         9         9         Uterus         —         1         1         Duodenal Ulcer, perforated         —         9         9         Uterus         —         17         18		I —			Penis 2 2
$ \begin{array}{c cccc} \text{Colitis, Ulcerative} & - & - & 1 & 1 \\ \text{Convulsions} & 2 & - & 2 \\ - & 2 & \text{Rib} & & & - & 1 & 1 \\ \text{Cut Throat, Suicidal} & & - & 1 & 1 \\ \text{Skin} & & & 1 & 1 \\ \text{Skin} & & & 1 & 1 \\ \text{Stomach} & & & & 1 & 1 \\ \text{Diabetes Mellitus} & & & 1 & 1 \\ \text{Disseminated Sclerosis} & & 4 & 4 \\ \text{Duodenal Ulcer} & & & 2 & 2 \\ \text{Duodenal Ulcer, perforated} & & 2 & 2 \\ \text{Duodenal Ulcer, perforated} & & 9 & 9 \\ \text{Uterus} & & & 1 & 7 \\ \text{Diaphragmatic Hernia of Stomach} & & 1 & 1 \\ \text{Empyena} & & & 1 & 1 \\ \text{Empyema} & & & 7 & 7 \\ \text{Empyema} & & & 7 & 7 \\ \text{Encephalitis Lethargica} & & 3 & 3 \\ \text{Extravasation of Urine} & & 3 & 3 \\ \text{Extravasation of Urine} & & 3 & 3 \\ \text{Fiscuture of:} & & & 9 \\ \text{Freature of:} & & & 9 \\ \text{Femur} & & & 9 & 9 \\ \text{Ovarian Cyst} & & & & 1 & 1 \\ \text{Skill} & & & & & & & & \\ \text{Spine} & & & & 1 & 1 \\ \text{Multiple} & & & 3 & 3 \\ \text{Gall Stones} & & & 3 & 3 \\ \text{Gangrene, Scnile} & & & 9 & 9 \\ \text{Peritonitis, General} & & & & & & & \\ \text{Gastric Ulcer, perforated} & & & & & & & & & \\ The mount of the constraints of the constr$	Coal Cas Deissering Cuisidal	<u> </u>		5	D 11
Convulsions         2         —         2         Rib         —         1         1         1         Cystivis         —         1         1         Skin         —         1         1         Cystivis         —         1         1         Skin         —         1         1         Cystivis         —         1         1         Skin         —         1         1         Diabetes Mellitus         —         1         1         Stomach         —         1         1         Testicle         —         1         1         Duodenal Ulcer         —         1         1         Testicle         —         1         1         Duodenal Ulcer, perforated         —         9         9         Uterus         —         17         17           Duodenal Ulcer, perforated         —         9         9         Uterus         —         17         17           Embound Scornary Artery         —         1         1         Marasmus         8         —         8           Empyema         —         —         7         7         Meningitis         Pneumococceal         1         1         2           Encephaltis Lethargica         —         3         3 <td></td> <td>I —</td> <td></td> <td>3</td> <td>70</td>		I —		3	70
Cut Throat, Suicidal         —         1         1         Skin         —         1         1         Stomach         —         20         20           Diabetes Mellitus         —         13         13         Supra-Renal         —         1         1           Diabetes Mellitus         —         -         4         4         Testicle         —         1         1           Duodenal Ulcer, perforated         —         9         9         Uterus         —         17         18         18         18         18         18         18         18         18         18         14         11         12         12         14         14         12         14         14         12         14         14         14         14         14         14         14         14         14         14         14         14	Commissions	9		2	7.3
Cystitis         —         1         1         Stomach         —         20         20         Da         Da         Da         Da         20         20         Da	C . T1 . C 1			ī	
Diabetes Mellitus	6 111	l —	l î	î	61 00 00
Duodenal Ulcer	Diabetes Mellitus		13	13	Supra-Renal 1 1
Diaphragmatic Hernia of Stomach	Disseminated Sclerosis	·	4	-4	Testicle — 1 1 1
Diaphragmatic Hernia of Stomach			2	2	Tongue 5 5
Empyema         —         7         7         Meningitis, Pneumococceal         1         1         1         2         2         Encephalitis Lethargica         —         3         3         Mastoiditis, chronic         —         1         1         Extravasation of Urine         —         1         1         Morbus Cordis         1         87         88         Extravasation of Urine         —         2         2         Phorbitis, acute         —         2         2         Pertractive of:         —         2         2         Nephritis, chronic         —         28         28           Fracture of:         —         2         2         Nephritis, chronic         —         28         28           Fracture of:         —         2         2         Nephritis, chronic         —         28         28           Fracture of:         —         0         Overland Cyst         —         —         28         28           Fracture of:         —         9         9         Paraplegia         —         2         2         28           Spine         —         1         1         Paraplegia         —         2         2         2         2         2		_		9	Uterus 17 17
Empyema         —         7         7         Meningitis, Pneumococceal         1         1         1         2         2         Encephalitis Lethargica         —         3         3         Mastoiditis, chronic         —         1         1         Extravasation of Urine         —         1         1         Morbus Cordis         1         87         88         Extravasation of Urine         —         2         2         Phorbitis, acute         —         2         2         Pertractive of:         —         2         2         Nephritis, chronic         —         28         28           Fracture of:         —         2         2         Nephritis, chronic         —         28         28           Fracture of:         —         2         2         Nephritis, chronic         —         28         28           Fracture of:         —         0         Overland Cyst         —         —         28         28           Fracture of:         —         9         9         Paraplegia         —         2         2         28           Spine         —         1         1         Paraplegia         —         2         2         2         2         2	Tember Communication Automorphism	-			Marasmus 8 — 8
Encephalitis Lethargica		_			Meningitis Proumococceal 3 1 4
Exophthalmic Goitre					Mastoiditis chronic
Extravasation of Urine       —       3       3       Nephritis, acute       —       2       2       2         Fibroids, Uterine       —       2       2       Nephritis, chronic       —       28       28         Fracture of:       —       0       Osteomyelitis, acute       1       —       1       1         Skull       —       5       5       Paraplegia       —       2       2         Spine       —       1       1       Paraplegia       —       1       1         Multiple       —       3       3       Pemphigus       —       1       1         Gall Stones       —       3       3       Pernicious Anæmia       —       7       7         Gangrene, Senile       —       9       9       Pertitonitis, General       —       3       3         Gangrene, Diahetic       —       7       7       Peritonitis, Pneumococceal       1       —       1         Gastric Ulcer       —       2       2       Placenta Prævia       —       1       1         Gastric Ulcer, perforated       —       7       7       Pneumonia, Hypostatic       —       1       1 <td>Town but a town Carte</td> <td>1</td> <td></td> <td></td> <td>Morhus Cordis 1 87 88</td>	Town but a town Carte	1			Morhus Cordis 1 87 88
Fracture of:	The American Addition of Their and Control of the C	4			Nephritis, acute 2 2
Fracture of:		-			Nephritis, chronic — 28 28
Skull					Osteomyelitis, acute 1 - 1
Spine		1 —			Ovarian Cyst 1 1 1
Gangrene, Diahetic         -       7       7       Peritonitis, Pneumococceal        1       -       1         Gastric Ulcer, Hæmatemesis        -       1       1       Pneumonia, Hypostatic        1       10       10         Gastric Ulcer, perforated        -       7       7       Pneumonia, Lohar        6       36       42         Gastro-Enteritis        1       1       2       Pneumonia, Influenzal        7       7	0 '	I —			Paraplegia 2 2
Gangrene, Diahetic         -       7       7       Peritonitis, Pneumococceal        1       -       1         Gastric Ulcer, Hæmatemesis        -       1       1       Pneumonia, Hypostatic        1       10       10         Gastric Ulcer, perforated        -       7       7       Pneumonia, Lohar        6       36       42         Gastro-Enteritis        1       1       2       Pneumonia, Influenzal        7       7	N. 101 1			1	Paralysis Agitans 1 1 1
Gangrene, Diahetic         -       7       7       Peritonitis, Pneumococceal        1       -       1         Gastric Ulcer, Hæmatemesis        -       1       1       Pneumonia, Hypostatic        1       10       10         Gastric Ulcer, perforated        -       7       7       Pneumonia, Lohar        6       36       42         Gastro-Enteritis        1       1       2       Pneumonia, Influenzal        7       7	C . 11 Ct *	-	3	3	Perpisions Apareira 1 1 7
Gangrene, Diahetic         -       7       7       Peritonitis, Pneumococceal        1       -       1         Gastric Ulcer, Hæmatemesis        -       1       1       Pneumonia, Hypostatic        1       10       10         Gastric Ulcer, perforated        -       7       7       Pneumonia, Lohar        6       36       42         Gastro-Enteritis        1       1       2       Pneumonia, Influenzal        7       7	Canmona Carilla			0	Peritopitis General 2 2
Gastric Ulcer, Hæmatemesis       —       2       2       Placenta Frævia       —       —       1       1         Gastric Ulcer, Hæmatemesis       —       —       1       1       Pneumonia, Hypostatic       —       —       10       10         Gastric Ulcer, perforated       —       —       7       7       Pneumonia, Lohar       —       6       36       42         Gastro-Enteritis       —       1       1       2       Pneumonia, Influenzal       —       7       7	Canamana Diahatia	1			In the test of the second seco
Gastric Ulcer, perforated 7 7 Pneumonia, Lohar 6 36 42 Gastro-Enteritis 1 1 2 Pneumonia, Influenzal 7 7 7		1 _		2	Discourte Donnelle
Gastric Ulcer, perforated 7 7 Pneumonia, Lohar 6 36 42 Gastro-Enteritis 1 1 2 Pneumonia, Influenzal 7 7 7	Gastric Ulcer, Hæmatemesis	I —			December 11 10 10
Gastro-Enterities 1 1 1 2 Pneumonia Influenzal 7 7	Gastric Ulcer, perforated		7	7	Pneumonia, Lohar 6   36   42
General Paralysis of Insane — 1 1 Polycystic Kidney — 1 1 1	Gastro-Enteritis	1		2	Pneumonia, Influenzal 7 7
	General Paralysis of Insane	1-	1	1	Polycystic Kidney 1 1 1

## CAUSES OF DEATH AT ALL AGES—continued.

		Under 16 years	Over 16 years	Total		Under 16 years	Over 16 years	Total
		33		33	Spina Bifida	 3		3
		_	14	14	Stone in Kidney	 	1 .	1
Dyonophrosis		_	1	1	Strangulated Hernia: Femoral	 	2	9
Dulorio Stoposio		1		1	Inguinal		$\frac{5}{2}$	2 2 3
Dave and a bin as		_	2	$\frac{1}{2}$	Ventral	 l — I	3	3
Rheumatic Fever		—	2 2	2	Internal	 -	1	1
			2	2	Stricture of Urethra	 <u> </u>	6	6
		1		1	Syphilis, acquired	 1 —	4	4 3
Ruptured Ectopic Gestation	n		2	2	Toxæmia of Pregnancy	 I —	3	3
Camilla Danam		_ !	$\frac{1}{92}$	92	Tuberculosis of: Knee	1		- 1
Senile Decay Septicæmia:		_	92	92	IZ: Amore	 1	_	1
Acuto Arthritic		_	1	1	Lungs	 2	64	66
Abortion		_	1	1	Meninges	 1	2	6
Cruptogonio			î	î	Peritoneum	 _	1	ĭ
			1	1	Spine	 1	_	1
		2	2	4	Tuberculosis, General	 2	_	2 2
		-	1	1	Whooping Cough	 2	-	2
Puerperal		-	12	12	1	1	1	

The dental work done is shown in the following table.

## DENTAL DEPARTMENT.

Number of Patients	Extrac Tempor- ary	Perma- nent	Fillings in Perm. Teeth	Scalings	Dentures etc.	Anaes- thetics	Other Opera- tions
363	20	1238	62	29	51	115	75

## (B) INFECTIOUS DISEASES HOSPITALS.

The following table gives a summary of the cases admitted to the infectious diseases hospitals:—

	Leeds Road	North Bierley	Calverley	Thornton	Total
Smallpox		_	_	_	
Scarlet Fever	490	85	49		624
Diphtheria	230	35	6		271
Enteric Fever	28	_	1		29
Cerebro Spinal Fever					$\begin{array}{c} 8 \\ 2 \\ 31 \end{array}$
Encephalitis Lethargica	2			_	2
Ervsipelas	31	_	_		31
Chicken Pox	12				12
Measles	39			_	39
Whooping Cough	36		_		36
Pneumonia	10		_		10
Other Diseases	135			_	135
Totals	1,021	120	56	_	1,197

## CITY HOSPITAL, LEEDS ROAD.

Report of the Medical Superintendent, John Douglas, M.B., Ch.B., D.P.H.

I have the honour to present the Annual Report for the year ended 31st December, 1932.

On 1st January, 1932, there were 83 patients in hospital and 1,021 patients were admitted during the year, making a total of 1,104 under treatment. Of these, 937 were discharged cured or relieved, 46 died, and 121 were in hospital on 31st December, 1932.

#### ADMISSIONS.

The number of admissions (1,021) shows a decrease of 121 on the previous year, due to a further decline in the incidence of Scarlet Fever.

The maximum number of patients admitted during any one month was 106, in December.

The maximum number of patients in hospital on any one day was 126, during November.

The minimum number of patients in hospital on any one day was 50, on 1st September.

The average daily number of patients in hospital was 87.78.

The average duration of stay of patients whose treatment was completed was 35.6 days.

TABLE SHOWING NUMBER OF CASES ADMITTED DURING EACH MONTH.

			rlet F	ever	Di	phthe	ria	Enteric Fever			Other Diseases			Total Admissions		
Mont	h	М.	F.	T'tal	М.	F.	T'tal	М.	F.	T'tal	M.	F.	T'tal	M.	F.	Total
February March April May June July		17 17 19 13	15 20 24 23 19 30 15 9	30 36 44 40 36 49 28 19	13 14 16 11 7 7 11 4	17 11 13 10 9 10 4 5	30 25 29 21 16 17 15 9				17 10 14 22 7 16 12	23 	40 10 29 37 19 25 23 15	45 40 53 48 32 42 36 22	55 33 51 52 41 50 30 23	100 73 104 100 73 92 66 45
November		25 26 38	$ \begin{array}{r} 19 \\ 24 \\ 36 \\ 25 \\ \hline 259 \end{array} $	34 49 62 63 490	10 2 10 9 	$ \begin{array}{c}     6 \\     9 \\     7 \\     15 \\ \hline     116 \end{array} $	$ \begin{array}{c c} 16 \\ 11 \\ 17 \\ 24 \\ \hline 230 \end{array} $	3 1 1 1 1	3 4 1 1 1 	6 7 2 2 	10 14 5 138	$ \begin{array}{c c} 9 \\ 11 \\ 10 \\ 12 \\ \hline 135 \end{array} $	$ \begin{array}{c c} 13 \\ 21 \\ 24 \\ 17 \\ \hline 273 \end{array} $	33 40 51 53 495	36 48 54 53 526	$ \begin{array}{c c} 69 \\ 88 \\ 105 \\ 106 \\ \hline 1021 \end{array} $

It will be seen from the above table that over 25% of the patients were suffering from diseases other than Scarlet Fever, Diphtheria, or Enteric Fever.

The satisfactory accommodation of these patients proved extremely difficult, and was only made possible by the utilisation of a Scarlet Fever Ward block, temporarily available by reason of the decreased number

of cases of Scarlet Fever. As the quinquennial rise in the incidence of Scarlet Fever is likely to occur within the next two years, the accommodation of these odd cases will prove increasingly difficult.

#### HOSPITAL DEATH RATE.

The death rate in respect of all admissions was 4.7%.

#### SCARLET FEVER.

Of 519 cases admitted as Scarlet Fever, the diagnosis was confirmed in 490.

The average length of stay of patients whose treatment was completed was 35.5 days.

TABLE SHOWING AGE AND SEX INCIDENCE OF SCARLET FEVER PATIENTS.

Age	0-5	5-10	10-15	15-20	20-25	25-30	30-35	35~40	40-45	45-50	Totals
D. Males	82	101	25			5	9				235
Recovered Females	59	109	41	16	9	5	3	5	1	1	249
Died Males	2	_	-	_	_	_	<u> </u>	_	_	_	2
Females	2	2	-	_	_	_	_	-	_	-	4
Totals	145	212	66	21	17	10	12	5	1	1	490
Age incidence per cent	29.59	43.27	13.47	4.29	3.47	2.04	2.45	1.02	0.20	0.20	100
Fatality rate per cent	2.76	0.94					_		_		1.22

## Type of the Disease.

The disease continued to be of a mild type, though there were six deaths, giving a case mortality rate of 1.22%.

There were no toxic cases and only three septic cases.

Two of the deaths in which the immediate cause was Scarlet Fever occurred in patients who were suffering from the septic type of the disease. In the four remaining deaths Scarlet Fever was only a contributory cause, the immediate causes being: Pnemococcal Peritonitis 1 case, Toxæmia following scalds 1 case, Empyema Thoracis 1 case, and Broncho Pneumonia 1 case.

#### Return Cases.

Of 451 patients discharged from the Scarlet Fever Wards, 7 apparently were responsible for 9 secondary cases. This gives a return case rate of  $2\cdot 0$  per cent. While this figure is considerably higher than

that of last year, it is, nevertheless, about the average. It is interesting to note that corresponding to this increase in the return case rate, there was a marked increased in the incidence of the complication Rhinitis.

Of the 7 infecting cases, only 1 had an obvious condition to which infection could be attributed. This was a patient with a small sore on the upper lip, which developed subsequent to discharge from hospital. This patient was responsible for the infection of three others.

The average duration of stay in hospital of patients giving rise to secondary cases was 36.3 days.

The average interval elapsing between the discharge of the primary cases and the onset of the disease in the secondary cases was 10 days.

Return cases infected in 1st week of primary cases' discharge 11·11%.

,,	,,	2nd	,,	,,	,,	44.44%.
,,	,,	3rd	,,	,,	,,	33.33%.
,,	,,	4th	,,	,,	, ,	11.11%.

## Complications.

The percentage incidence of the principal complications is given in the following table:—

Complications.	No.	of Cas	ses.	Percentage Incidence.
Late Adenitis (suppurative in 3	cases)	35		$7 \cdot 14$
Late Rhinitis		59		12.04
Otorrhea (unilateral in 16 cases, b.	ilateral			
in 15 cases)		31		6.32
Arthritis and Myositis		12		2.44
Nephritis and Late Albuminuria		11		2.22

An uncommon complication was that of Osteomyelitis of the head of the Femur following a mild attack of Scarlet Fever in a boy of four years.

#### Ear.

There were 31 cases of Otorrhea (6·32%), unilateral in 16 cases and bilateral in 15. Of these 31 cases 3 developed Acute Mastoiditis (9·7%), 2 unilateral and 1 bilateral.

The intramuscular injection of Anti-scarlatinal Serum had no apparent effect in reducing this complication.

#### Nose.

Rhinitis during convalescence occurred in 59 cases (12·19%), a marked increase as compared with the year 1931, when there 31 cases  $(5\cdot25\%)$ .

In the serum treated cases the incidence of Rhinitis was 7.21%.

#### Throat.

Tonsillitis during convalescence occurred in 15 cases.

## Operative Treatment.

The services of Mr. W. Appleyard, F.R.C.S., were available in the operative treatment of Ear, Nose and Throat complications.

Operations.	Num	ber of Cases.
Mastoid drainage		3 (1 bilateral)
Tonsillectomy and Adenoid Curettage		16
Middle Turbinectomy and Maxillary		
Antrium drainage	• • •	1
Frontal Sinus drainage		2

## Relapses.

A recurrence during convalescence of the signs and symptoms of Scarlet Fever occurred in 7 cases, giving a percentage relapse rate of 1.43.

## Cross Infection.

Sixteen patients developed a secondary infection. Of these 6 were infected before admission, with Whooping Cough 4 cases, Mumps 1 case, and Chicken Pox 1 case.

The only case giving rise to cross infection was the Chicken Pox case, which infected 10 others.

#### Serum Treatment.

In pursuance of the policy of recent years, Scarlatinal Antitoxin was injected intramuscularly in the most acute cases. In all, 111 patients were so treated (22.65%).

The administration of serum, while proving effective in diminishing the initial toxemia, had no demonstrable effect in reducing the incidence of complications.

Serum rashes occurred in 10 cases (9.01%).

#### DIPHTHERIA.

Two hundred and sixty-seven patients were admitted to the Wards with the diagnosis of Diphtheria, which was confirmed in 230 cases.

The average length of stay of patients whose treatment was completed was 44.97 days.

Table Showing Age and Sex Incidence of Diphtheria Patients.

Recovered { Males Females Males Died { Females	38 25 6 5	38 46 2	10-15 18 17 1	15-20 1 9	20–25 — — 7	25–30 3 1 1	30-35 1 1	35–40 	40-45 ————————————————————————————————————	45-50 — — —	50-55 1 —	Total  103 110 10
Females  Totals  Age incident per cent	74	87 37.83	$\frac{1}{37}$ $\frac{1}{16\cdot 1}$	10	7 3.04	$\frac{-}{5}$ $\frac{-}{2 \cdot 17}$	$\frac{-}{2}$ $\frac{-}{0.87}$	6 2.61	1 0.44		1 0·44	230
Fatality rate per cent			5.8	=	-	20.0	=	_	_	_		7.39

## Type of the Disease.

The disease was of a more severe type than that of the previous years. There were 7 toxic hæmorrhagic cases.

## Case Mortality Rate.

There were 17 deaths, giving a case mortality rate of 7.39%.

If 3 deaths be excluded of patients suffering from other diseases and admitted on bacteriological evidence only, the case mortality rate was 6.09%.

This increase in the case mortality rate (4.95% in 1931) was due to the increase in the number of toxic hæmorrhagic cases; of the 14 deaths due to clinical Diphtheria, 7 of the patients suffered from this malignant type.

Eight deaths occurred within 48 hours of admission to hospital.

## Fatal Cases (excluding Bacteriological cases).

Day of disease on admission to hospital.

Day of disease	1	<b>2</b>	3	4	5	6	7	7+
Number of Cases			$^2$	1	$^2$	$^2$	1	6

Fatal Cases (including Bacteriological cases).

Day of disease on which death occurred.

Average 11th day.

## Sites of Infection.

Site	Number of Cases	Percentage of total Cases	Number of Deaths	Case Mortality Rate per cent.
Fauces	140	60.87	3	2.14
Nose	11	4.78		_
Larynx	$rac{2}{27}$	0.87	1,	1
Fauces and Larynx Fauces, Larynx, Nose		11.7	$\begin{vmatrix} 2 \\ 5 \end{vmatrix}$	14.71
and Nasopharynx	5	$2 \cdot 17$	2)	)
Fauces, Nose and				
Nasopharynx	22	9.57	6	$27 \cdot 27$
Wound	1	0.43	_	_

In addition to the above, 22 cases were admitted to the Diphtheria Wards on bacteriological evidence only. The fauces and nose were the sites chiefly affected.

## Complications.

The paralytic complications were classified as follows:—

Paralys	es.			No. of Cases.	Percentage of Total Cases.
All types		•••		21	 5.7
Palate				8	 3.85
Ocular muse	cles			3	 1.44
Pharynx	•••		•••	1	 0.48
Other Comp	plication	ons—			
Otorrh	ea			4	 1.74
Nephri	tis			2	 0.87

#### LARYNGEAL DIPHTHERIA.

There were 34 patients in whom the larynx was affected either primarily or secondarily.

Operative interference was necessary in 12 cases.

Operation.	No.	of Cases.		No. of Death	s.	Mortality rate per cent.
Intubation of the larynx		8	•••	1		12.50
Tracheotomy		2	• • •	0 .		_
Intubation and subsequen	ıt					
tracheotomy		2		2		100

The case mortality rate in all cases requiring operative treatment was 25%.

## Cross Infection.

Chicken Pox.—Two cases incubating this disease on admission to hospital gave rise to one secondary case.

Measles.—One case incubating the disease on admission to hospital gave rise to one secondary case.

Bacillary Dysentery.—There were 10 cases of Bacillary Dysentery in the Diphtheria block. The disease was fortunately of a mild type, and the outbreak was traced to a Dysentery carrier who had been admitted suffering from Diphtheria.

## Dosage of Anti-Diphtheritic Serum.

Average initial dose—all cases	•••	•••	•••	13,265 units.
Average total dose—all cases	•••			14,265 units.
Average initial dose-malignant cases	•••	•••		29,333 units.
Average total dose-malignant cases	•••		•••	32,000 units.
Average initial dose—severe cases				20,889 units.
Average total dose—severe cases	•••	•••		26,444 units.
Average initial dose—average cases	•••	•••		13,536 units.
Average total dose—average cases				15,536 units.
Average initial dose—mild cases	•••	•••		5,800 units.

#### ENTERIC FEVER.

There were 28 cases of Enteric Fever admitted to the Wards, the infecting organisms being the Bacillus Typhosus in 6 cases and the Bacillus Paratyphosus B. in 22 cases.

## TABLE SHOWING MONTHLY INCIDENCE OF ENTERIC FEVER.

Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
_	2	2	2	2	1		2	6	7	2	2	28

#### TYPHOID FEVER.

There were 6 cases of Typhoid Fever and no deaths.

TABLE SHOWING AGE INCIDENCE OF TYPHOID FEVER PATIENTS.

Age	0-5	5-10	10-15	15-20	20–25	25-30	30–35	35-40	40-45	45-50	Total
$ \text{Recovered} \left\{ \begin{matrix} \text{Males} \\ \text{Females} \end{matrix} \right. $	1 —	_	_	1	1	_	_	_		1	2 4

## Complications.

Intestinal Hæmorrhage.—This occurred in a woman of 43 years on the tenth day of the disease.

## Relapses.

A repetition of the signs and symptoms of Typhoid Fever after a period of apyrenia occurred in two cases: (1) On the 37th day of disease in a woman of 43 years; (2) on the 45th day of disease in a woman of 45 years.

#### PARATYPHOID FEVER B.

There were 22 cases of Paratyphoid Fever B. and 1 death, a case mortality rate of 4.55%.

#### Table Showing Age Incidence of Paratyphoid Fever Patients.

Age	0-5	5-10	10–15	15-20	20-25	25-30	30-35	35-40	40-45	45-50	Totals
Recovered { Male Female Male Male Male	2 2 -	2 1	4 1		 1 	 1 			111	1 1 -	9 12 —
Female	_	_	_	_	_			-	_	1	1

## Complications.

- (1) Intestinal Hæmorrhage in a male of 8 years on the 10th day of disease.
- (2) Acute Cholecystitis in (a) a male of 47 years on the 34th day of disease; (b) a female of 51 years on the 24th day of disease.

#### Carriers.

Three Paratyphoid Bacillus B. carriers were treated in hospital, and were finally discharged, free from infection, after 51, 39, and 29 days respectively.

#### CEREBRO-SPINAL FEVER.

There were 8 cases of Cerebro-Spinal Fever admitted to hospital, and 4 patients died, a case mortality rate of 50%.

TABLE SHOWING AGE INCIDENCE OF CEREBRO-SPINAL FEVER.

|--|

Average day of disease on admission to hospital—

Recoveries: Fifth. Deaths: Eleventh.

Average day of disease on which death occurred: Twenty-sixth.

Average number of punctures performed (lumbar, cistern, or ventricular): Nine.

Average amount of serum given: 93 ccs.

## Complications.

Arthritis, 1 case.

Hydrocephalus, 1 case.

The organism most frequently present was shown to belong to Type III.

## Meningococcal Carriers.

Two female contacts of one of the above cases were found to be harbouring the Meningococcus in the nasopharynx.

After treatment in hospital in each case for 21 days they were discharged free from infection.

#### ERYSIPELAS.

#### TABLE SHOWING AGE INCIDENCE OF ERYSIPELAS.

Age		5-10	10-15	15-20	20-25	25-30	30-35	35-40	40-45	45-50	50-55	55-60	60-65	65-70	70-75	75-80	Total
$ \begin{array}{c} \text{Recovered} \left\{ \begin{matrix} \text{Males} \\ \text{Females} \end{matrix} \right. \\ \text{Died} \left\{ \begin{matrix} \text{Males} \\ \text{Females} \end{matrix} \right. \end{array} $		1111		- 3 - -	- 1 -		3 1 - -	1 - -	_ 1 - -	2 1 - -	2 2 - -	1 3 - -	2 1 -	- 1 -	1 -	1 - - -	14 16 1

Case mortality rate, 3.23%.

## Site of Infection.

Site.		No	. of Case	Percentage of Total Cases.	Mortality Rate per cent.
Head and no	eck		29	 93.55	 _
Arm .			1	 3.23	 
Leg .			3	 9.68	 33.33

## Complications.

Complication.			No. o	of Cases.	
Abscess of lower eyelid	 	• • •	 	1 -	
Cellulitis of scalp	 		 	1	

#### Serum Treatment.

46.67% of patients were treated with Anti-scarlatinal Serum.

#### MEASLES.

Thirty-nine patients were admitted to the Wards suffering from Measles. These cases were either from other institutions or had a severe complication which made treatment at home difficult.

## Complications.

Complication	No. of Cases.	Perce	ntage incidence.
Broncho Pneumonia	 15		38.46
Otorrhea	 4		10.26

## Case Mortality Rate.

There were 5 deaths, a case mortality rate of  $13{\cdot}13\%.$ 

#### Whooping Cough.

Thirty-six cases were admitted during the year. These patients were either from other institutions or had a severe complication which made treatment at home difficult.

## Complications.

Complication	n			No. of Cases.	Perce	ntage incidence.
Broncho Pne	umonia			10		27.78
Spontaneous	Pneun	otho	rax	1	•••	2.78
Otorrhea	•••	•••	•••	1		2.78
Convulsions				1		2.78
Prolapsus An	i		•••	1		2.78

## Case Mortality Rate.

There were 4 deaths, a case mortality rate of 11.11%.

#### OTHER DISEASES.

Patients admitted suffering from other conditions to which reference has not yet been made were classified as follows:—

	Disease.								otal No. Cases. D	eaths
INF	ECTIOUS DISEASES:—									
	Chicken Pox Influenza	•••	•••						12 10	_
	Mumps								6	_
	Bacillary Dysentery	•••	•••	•••	•••	•••	•••		6	_
	Rubella				•••	•••	•••		3	_
	Encephalitis Lethars	gica	•••						2	_
	Vincent's Angina	•••	•••	•••	•••	•••			1	—
·D***	LMONARY DISEASES									
.FUI										
	Bronchitis	•••	•••	• • • •	• • •	• • •			10	1
	Broncho Pneumonia	•••	•••	•••	•••		•••		9	3
	Lobar Pneumonia	•••	•••	•••	• • •	•••	•••		1	_
SEF	TIC CONDITIONS OF E	ar, No	SE ANI	THRO	AT:					
	Acute Laryngitis		•••						6	_
	Acute Pharyngitis			•••	••	•••			2	-
	Peritonsillar Abscess		• • • •	•••	•••		•••		2	
		. • • •	•••	•••	•••	•••	•••		42	
	Otorrhea	•••	•••	•••	•••	•••	•••		1	—
	Perichondritis	•••	•••	•••	•••	•••	•••	• • •	1	_
·OTI	IER SEPTIC CONDITION	vs:								
	Cellulitis of Arm								1	_
	Abscesses	•••	•••	•••	•••		•••		3	1
70.										
DIS	EASES OF ALIMENTAR	Y CAN	\L:							
	Food Poisoning		•••						2	1
	Gastro-Enteritis		•••						3	1

#### SKIN DISEASES:-

Various Erythemata Impetigo Infantile Eczema Pemphigus								5 2 2 3	_ _ 1
OTHER DISEASES AND CO	NDITION	vs:—							
Acute Catarrhal Jau	ndice							1	
Pyelitis								2	
Acute Peritonitis								ĩ	_
Acute Rheumatic F								î	_
Synovitis of Knee								î	_
Acute Malignant En								î	1
Acute Miliary Tuber			•••					i	î
								î	_
Nil Abnormal Detec								10	_
2.12.12.1101111111 20000		•••	•••				•••		
				m 1				154	
				Total	• • •	• • •		154	10

#### REMOVAL OF INFECTIOUS CASES.

One motor ambulance is stationed at Leeds Road Hospital, and is used for the conveyance of cases to Leeds Road Hospital and Calverley Joint Hospital.

During the year the ambulance covered 7,877 miles in the removal of cases to hospital.

All cases are removed separately, so as to minimise as much as possible the risk of cross-infection, and the ambulance is disinfected between each journey.

A trained nurse and a Removals Officer accompany the ambulance on each journey.

#### EAR, NOSE AND THROAT CASES.

The local authority has treated in a special department of this hospital for some years operative cases of diseases of the Ear, Nose and Throat occurring among children referred from the various clinics.

The following is a summary of the cases treated in 1932:

Tonsillectomy	and	Adenoid	Curett	age		899 cases
Mastoid draina	.ge	• • •	•••		•••	1 case

Of these cases, 774 were from the Bradford School Clinics.

#### SICKNESS OF THE STAFF.

Twenty-two members of the nursing and domestic staff were treated in this hospital for various conditions.

Disease.	Nursing Staff.		Domestic Staff.	To	otal days lost to Hospital.
Scarlet Fever	. 3				93
Diphtheria	. 2		_		85
Influenza	. 4	•••	1		<b>7</b> 2
Septic Conditions of					
Throat	. 5		2		97
Bronchitis	. 1		_		17
Sub-acute Rheumatis	m —		1		13
Cellulitis of Arm	1	•••	_		22
Totals	16		4		399

The five cases of Scarlet Fever and Diphtheria occurred in susceptible nurses who had not been actively immunised.

In conclusion, I wish to record my appreciation of the services of the Assistant Medical Officer, Dr. S. Louise Rook, the Matron, Miss M. M. Lewis, and all the other members of the Staff.

# SUMMARY.

-				-											
	From 1921 to 1932.	Average No. of days for each Patient.	32.5	38.3	33.8	33.7	31.2	31.1	28.5	28.7	29.3	29.3	33.5	35.6	
	From 192	Aggregate No. of days spent in Hospital.	38,815	48,753	30,465	21,493	30,318	29,127	25,475	35,129	49,060	38,216	36,672	36,348	
		Death-rate	4.9	8.7	6.4	4.3	96-9	3.31	5.6	1.9	4.3	3.29	4.17	4.7	
	TOTALS.	Deaths,	59	35	58	58	58	31	57	24	72	43	43	47	
		Cases.	1,192	1,268	899	644	972	936	892	1,222	1,676	1304	1103	1,021	
	SES.	Death-rate per 100.	14.2	10.12	20.3	15.7	13.7	6.72	12.2	9.8	10.3	8.5	10.74	8.79	
	ER DISEASES.	Desths,	24	œ	38	21	42	15	31	11	23	13	35	24	
	Отнек	. SaseS	169	46	187	134	306	223	254	126	232	153	326	273	
	÷	Death-rate	6.38	2.73	7.4	3.6	4.57	6.29	6.8	3.03	11.5	6.64	4.92	7.39	
	<b>D</b> гентнекіа.	Deaths.	18	7	14	7.0	12	16	56	4	39	18	6	17	
	Q	.səseJ	282	256	188	163	274	254	292	132	338	271	183	230	
	ÆR.	Death-rate	1.65	2.05	81.0	0.59	0.77	1	1	0.37	0.81	1.37	0.17	1.22	
	SCARLET FEVER	Desths.	12	19	4	61	က	1	1	က	6	12	-	9	
	Scal	.səssa)	727	924	511	334	387	450	335	812	1,103	875	290	490	
	ER.	Desth-rate	35.7	11.1	15.4	1	20.0	1	0.6	9-91	33.3	1	25.0	3.57	
	ERIC FEVER.	Leaths.	5	-	67	1	1	1	1	23	1	1	-	1	
	Enteri	.səses.	14	6	13	13	ıΦ	6	11	12	က	5	4	28	
	,,	Death-rate	1	1	1	1	1			2.85	1	1		1	
	SMALL-POX.	Deaths.	1	1	1	1	I	1	1	4	1	1		I	
	Ø	.eases.	1	1	1	1	1	1	I	140	1	1	26	1	
		YEAR.	1921	1922	1923	1924	1925	1926	1927	1928	1929	1930	1931	1932	

#### VIII.—HOUSING.

(1) New Houses in 1932. The average number of new houses certified as fit for human habitation annually during the five years preceding 1918 was 242, and the following statement shows the number so certified each year since then.

Year	New Houses	Year	New Houses	Year	New Houses
1918	38	1923	257	1928	1,927
1919	6	1924	711	1929	958
1920	38	1925	1,521	1930	508
1921	479	1926	2246	1931	504
1922	480	1927	2,069	1932	1,129
1918-22	208 (average)	1923-27	1361 (average)	1928-32	1,005 (average)

The number of new houses built during the past ten years in each Ward and certified as fit for human habitation in accordance with the Bradford Waterworks and Improvement Act, 1871, is shown in the table on the following page.

The position with regard to house building by the City Council on the 31st December, 1932, was as follows:—

Seventeen single-room dwellings were under contract and in course of erection at the end of the year, while during the year 652 houses and 32 single-room dwellings had been completed by the Corporation and occupied. In addition to these there were 396 houses being built by private enterprise at the close of the year.

The total number of new houses built in the City during the 12 years ended 31st December last 12,912; 7,234 of these houses have been built by the local authority with State assistance; 3,761 houses were built by private enterprise with the aid of the Government subsidy under the Housing Act, 1923; 66 houses and shops were built by the local authority without State assistance, and 440 houses were built by private enterprise without State assistance.

The type and accommodation of the houses built by the local authority, together with their locality, are set out on the table on page 139.

#### NEW BUILDINGS.

Showing number of New Buildings certifed as fit for habitation in each of the Wards, and in the whole City, during the years 1923—1932.

W	ARDS	 1923	1924	1925	1926	1927	1928	1929	1930	1931	1932
Allerton	•••	 4	25	140	585	481	176	172	32	147	687
Bolton	•••	 2	5	58	125	203	388	36	11	22	55
Bradford Moo	r	 59	193	176	176	110	29	46	24	11	49
Clayton		 12	17	12	53	40	33	38	25	18	24
East	•••	   —	9	14	3	12	_	_	_	_	3
East Bowling	•••	 1	_	3	5	36	8	_	9	13	8
Eccleshill		 21	66	84	180	304	686	173	43	68	59
Exchange	•••	   _	1	_	_	_	1	_	_	_	_
Great Horton		 95	71	84	81	161	88	56	26	78	66
Heaton	•••	 14	15	33	25	32	_	7	16	14	4
Idle		 13	105	106	150	216	87	54	9	40	13
Listerhills		 _	2	_	_	_	_	_	3	_	_
Little Horton	•••	 3	12	17	36	51	45	57	22	15	28
Manningham		  -	10	18	8	15	5	116	144	_	_
North		  -	_	3	_	3	_	_	2	_	_
North Bierley	East	 . 2	58	403	397	134	264	52	14	13	41
North Bierley	West	 27	88	213	251	100	74	88	69	35	64
South		   _	_	_	6	_	_	_	_	_	_
Thornton		 . 2	7	58	134	118	24	2	3	8	4
Tong		 -	2	3	4	2	2	1	1	2	4
West		 _	_	56	1	_	_	_	12	_	1
West Bowling		 2	25	40	26	51	17	60	43	20	19
City To	otal	 257	711	1521	2246	2069	1927	958	508	504	1129

<sup>(2)</sup> Overcrowding. Many very serious cases of overcrowding continue to come to the knowledge of the department during the year, but despite the increase in the provision of houses there still remains a great scarcity of housing accommodation, which complicates the position. On the 31st December, 1932, the number of applicants for new houses was approximately 3,367, 1,083 of whom were living in apartments.

Types of Houses Built by the Local Authority.

Site		Parlour and 4 bed- rooms	Parlour and 3 bed rooms	Non- parlour 3 bed- rooms	Non- parlour 2 bed- rooms	Houses for aged persons	Flats	Total	Houses and Shops
Odsal	•••		28	386	40	_		454	4
Thornbury			20	130	$\tilde{16}$		_	166	$\frac{1}{2}$
Bradford Moor		12	114	468	74		_	668	$1\overline{2}$
Scholemoor	•••	10	122	360	12		_	504	6
Thackley		_		58	_		_	58	
Eccleshill		_	120	718	40	_	_	878	6
Shirley Manor		_		350	_	_		350	4
Chellow Grange		_	52	674	44	_	_	770	_
Bierley		_	50	814	_	32	_	896	16
Thornton			100	200	20	_	_	320	_
Swain House		_	32	654	52	_	_	738	8
Lower Grange		_	68	718	30	l —	_	816	8
Whetley Lane		_	_	180	36	24	_	240	<del></del>
Greengates		_	_	40	_		_	40	_
Musgrave Road			_	42	_	_		42	-
White Abbey	• • • •		_	40	_	_	_	40	<u> </u>
Low Moor	• • • •	_	_	22	_	_	_	22	-
Idle		_	—	86	_	<u> </u>	_	86	—
Woodhall Place	•••	_	_	6	_	<u> </u>	_	6	_
Clayton	• • •	_	1	73	_	-		74	
Longlands		_	_	_	_	_	66	66	_
Totals		22	707	6,019	364	56	66	7,234	66

(3) White Abbey Area Improvement Scheme. With regard to the scheme all the properties have been acquired, and 89 per cent. of the properties have been demolished. Substitution accommodation has been provided in the 66 tenement dwellings on the Longlands site; 42 houses at Musgrave Road, Eccleshill; 240 houses on the Whetley Lane site; and 40 houses in the White Abbey area.

## (4) Prosecutions, 1932.

Nature of Offence	No. of Cases	Result
Housing Act 1930, Ser. 39— Recovery of possession of build- ings subject to Demolition Orders.	15	Orders for possession in 28 days made in 11 cases. The remaining cases were withdrawn, possession being obtained prior to date of hearing.

# (5) APPEALS UNDER HOUSING ACTS.

Housing Act, 1930	Premises	Nature of Appeal	Result	
Section 19	23, 25, 27, 29, Acre Street. 18, 20, 22, 24, Warwick Street	Appeals against Notices of Demolition.	Appeals (eight) dismissed. Owner to pay costs.	
Section 17	212/242 New Line, Greengates	Notices to execute works.	Appealed in 1931. Owner carried out works and withdrew appeal.	
Section 17	57, 59, Ford Place	Notices to execute works.	Appeal dismissed.	

# HOUSING STATISTICS, 1932.

To		number of new houses erected during the year (i) by the Local Authority	1,129 684
	(	(ii) By other Local Authorities	445
I.	Ins	spection of dwelling-houses during the year.	
	(1)	(a) Total number of dwelling-houses inspected for housing defects (under Public Health or Housing Acts)	13,134 38,693
	(2)	(a) Number of dwelling-houses (included under sub-head (1) above) which were inspected and recorded under the Housing Consolidated Regulations, 1925	1,597
	(0)	(b) Number of inspections made for the purpose	13,830
	(3)	Number of dwelling-houses found to be in a state so dangerous or injurious to health as to be unfit for human habitation	226
	(4)	Number of dwelling-houses (exclusive of those referred to under the preceding sub-head) found not to be in all respects reason- ably fit for human habitation	2,912
II.	Re	emedy of Defects during the year without service of formal Notices.	
		mber of defective dwelling-houses rendered fit in consequence of informal action by the Local Authority or their officers	1,228
III	. А	action under Statutory Powers during the year.	
	A.	Proceedings under Sections 17, 18 and 23 of the Housing Act, 1930.	
		(1) Number of dwelling-houses in respect of which notices were served requiring repairs	1,018
		of formal notices— (a) by owners	933 18
	B.	Proceedings under Public Health Acts.	
		(1) Number of dwelling-houses in respect of which notices were served requiring defects to be remedied	8,496
		(2) Number of dwelling-houses in which defects were remedied after service of formal notices—	
		(a) by owners(b) by Local Authority in default of owners	4,167 17
	C.	Proceedings under Sections 19 and 21 of the Housing Act, 1930.	
		(1) Number of dwelling-houses in respect of which demolition orders were made	56
		(2) Number of dwelling-houses demolished in pursuance of demo-	
		lition orders	23
		of scheme under Section 19 (4) Number of dwelling-houses in respect of which undertakings	10
		were given that houses would not be used for human habitation (5) Number of dwelling-houses in respect of which undertakings were given that houses would be rendered fit for human	9
		habitation	151
		were complied with to the satisfaction of the Local Authority	82
	D.	Proceedings under Section 20 of the Housing Act, 1930.	
		(1) Number of separate tenements or underground rooms in respect of which closing orders were made	_
		(2) Number of separate tenements or underground rooms in respect of which closing orders were determined, the tenement or room having been rendered fit	

#### IX.—MISCELLANEOUS.

## (A) GENERAL DENTAL WORK.

The dental work carried out under the auspices of the City of Bradford's Health Committee has followed the practice of previous years and continues to fill a great public need. St. Luke's General Hospital is visited twice weekly. Bierley and Grassington Sanatoria are visited every four or five weeks, and the Mental Institutions are visited bi-annually. Patients from the Institutions under the authority of the Public Assistance Committee have been attended to at the Clinic, and also treated at the Institutions when necessary. The denture work done for the Public Assistance Committee continues to increase, and when the present cost is compared with the former, it will be seen that a considerable saving has been effected.

Over 300 ante-natal cases have been attended to.

A tabular state of the work is given on page 144.

## (B) AMBULANCE WORK AND DISINFECTION.

The ambulance facilities for the city are as follows:—At the City Fever Hospital there is provided a motor ambulance, which during 1932 removed 1,150 cases to Hospital. At the Municipal General Hospital three motor ambulances are provided, which in addition to removing cases to the General Hospital, also removed cases to Bierley Hall Sanatorium and the voluntary institutions in the city. The police maintain a motor ambulance for street casualities. Two motor ambulances are maintained for the removal of physically defective children to school, and one motor ambulance is maintained at Grassington for the removal thereto of cases of Pulmonary Tuberculosis.

The total number of articles disinfected at the Disinfecting Station, Canal Road, was 5,972, as against 7,917 last year. The number of houses disinfected by the Disinfecting Officer was 2,013, as against 1,901 last year. In addition disinfection was carried out at the request of manufacturers, property owners, and others, for which charges were made amounting to £56 3s. 8d. The revenue from this source last year was £67 14s. 2d.

## (C) PUBLIC MORTUARY AND CREMATORIUM.

During the past year 116 bodies have been deposited and 34 postmortem examinations made in the Public Mortuary. Since the opening in October, 1910, 2,088 bodies have been deposited.

The remains of 123 persons were cremated during 1932 at the Scholemoor Crematorium, in comparison with 77 during the previous year.

The table on page 145, prepared by the Cremation Society, shows the number of Cremations carried out in Great Britain since the year 1885.

TABLE SHOWING WORK CARRIED OUT AT THE DENTAL CLINIC DURING THE YEAR.

ons	Crowns & Regs	ı	1	-		4	1	ı	5
Other Operations	Dressings & Regs	72	20	89	51	က	61	16	232
Oth	Root	ಣ		4		-	-		0
Gas, Ether and Chloro- form		115	34	145	320		67	14	630
Dentures Repairs, etc.		51	21	90		9	9	29	203
	Scalings	29	11	16	1		22	5	83
Permanent Teeth Filled		62	34	41		12	39	4	192
Temporary Temporary Permanent Permanent Teeth Teeth Teeth Teeth Filled Extracted Filled Extracted Filled		1238	198	936	1	1	32	226	2631
femporary Teeth Filled					135		1		135
Temporary	Teeth Extracted	20	73		1129				1222
Number	of Patient's Visits	671	259	734	555	49	67	146	2481
;	Number of Patients	363	210	242	514	17	56	53	1455
Source		St. Luke's Hospital	Tuberculosis Scheme	Maternity	Infants & young Children	School Children	Mental Institutions	Public Assistance	Totals

Table of Cremations carried out in Great Britain since the year 1885.

1928         1929         1930         1931         1932         Total           344         426         446         476         446         8487           367         443         442         508         626         7476           141         172         121         158         165         2411           103         103         160         163         171         2375           39         56         52         62         77         688           11483         1797         1787         186         2255         26488           61         124         119         89         94         1151           103         99         112         186         1676           45         47         186         225         26488           46         49         77         123         1676           410         390         415         480         432           11         14         12         13         11           20         28         40         43         51         266           20         28         40         43         51 <td< th=""><th></th><th>  11121   1188   1279   1410   1360   1509   1795   2031   1796   1922   2009   1988   2395   2701   2877   3265   3436   4341   4533   5195   6315   64467   2486  </th></td<>		11121   1188   1279   1410   1360   1509   1795   2031   1796   1922   2009   1988   2395   2701   2877   3265   3436   4341   4533   5195   6315   64467   2486
1930         1931         1932           446         476         446           442         508         626           121         158         165           160         163         171           84         128         126           17         186         2255           119         89         94           119         89         94           119         89         94           119         110         116           110         112         118           111         112         148           112         13         13           40         43         51           144         263           6         4         9           6         4         9           70         77           113         13           144         263           6         4           17         77           17         13		5 3436 4341 4533 5195 6315
1930 11 446 442 121 160 84 552 1119 180 73 1112 49 559 125 125 178 180 180 180 180 180 180 180 180 180 18		5 3436 4341 4533 5195
928         1929         1930           444         426         446           441         426         446           441         172         121           443         442         442           441         172         121           442         442         442           443         103         160           441         124         119           445         47         49           446         47         49           440         410         390           440         410         390           440         40         40           441         12         11           440         40         40           440         40         40           440         40         40           440         40         40           440         40         40           440         40         40           440         40         40           440         40         40           440         40         40           440         40         40 <td< td=""><td></td><td>5 3436 4341 4533</td></td<>		5 3436 4341 4533
128         1929           144         426           167         443           172         97           172         97           1883         1797           157         205           60         66           61         124           103         99           45         47           106         410           107         28           108         20           109         20           11         14           11         14           11         14           11         14           11         14           11         14           11         14           11         14           11         14           11         14           12         20           13         37           14         11           15         14           16         14           17         11           18         12           18         12           19         14		5 3436 4341
8 2 4 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2		5 3436
21 22 22 1 1 1 1 1 1 1		10
1927 1927 1927 101 101 103 1459 1459 150 150 150 160 170 170 170 170 170 170 170 17		326
1926 305 303 303 305 303 305 40 40 40 40 40 40 40 40 40 40 40 40 40	1	2877
235 231 287 251 287 251 287 251 287 251 287 251 287 251 287 251 251 251 251 251 251 251 251 251 251		2701
261 162 178 178 178 178 178 178 178 178 178 178	Ì	2395
1923 170 170 170 170 170 170 170 170 170 170		1988
193 193 193 174 174 174 174 174 174 174 174 174 174	1	2009
1921 159 159 20 877 877 877 877 877 187 187 187 187 187	1	1922
1920 1920 1920 80 80 80 80 138 132 26 26 28 27 28 28 29 20 30 30 30 30 30 30 30 30 30 30 30 30 30	1	1796
1919 181 181 181 184 88 89 89 109 109 109 109 109 109 109 109 109 10		2031
1918 1977 1977 1977 1978 1978 1978 1978	1	1795
1916   1917   1736   1739   1739   1739   1739   1739   1738   1739	1	1509
1916 1719 655 65 65 65 83 10 633 14 11 11 11 11 11 11 11 11 11 11 11 11 1	1	1360
1915 165 165 165 165 165 173 173 173 173 173 173 173 173 173 173		1410
1914 1124 1848 1848 16 111 111 118 182 183 184 184 184 184 184 184 184 184 184 184		1279
1913 1728 1728 1728 1738 166 666 6602 111 112 113 114 115 115 116 117 117 117 117 117 117 117 117 117		1188
1885 1915 1917 1917 1918		1121
Crematorium  Woking Manchester Glasgow Liverpool Hull Darlington Golder's Gr'n† Leicester Birmingham Leeds Ilford† Birmingham Leeds Horwood† Rorwood† Fendon Park† Pontypridd Bristol Bristol Flendon Park† Pontypridd Bristol Bristol Bristol Bristol Bristol Bristol Bristol Bristol Brighton Southampton Guernsey Nottingham Southampton Reading	gg	Total 1

# APPENDIX.

TABLE I.

VITAL STATISTICS OF WHOLE DISTRICT DURING 1932 AND PREVIOUS YEARS.

,										
NG	At all Ages.		Rate.		14.57	13.60	15.66	13.45	14.21	13.89
T DEATHS BELONGI			Number,		4271	3925	4528	4020	4277	4117
NETT DEATHS BELONGING TO THE DISTRICT.	Under 1 Year of Age.	Rate per 1,000 Nett. Births.			94	69	80	75	71	75
, N	Under 1 Y		Number.		404	307	346	327	292	302
ERABLE THS.	J.	Residents	not registered in the District.		246	242	227	180	161	162
TRANSF	Transferable Deaths.  of Non- residents Residen registered in the register District. District. District.				193	192	215	233	321	304
TOTAL DEATHS REGISTERED IN	THE DISTRICT.		Rate.		14.39	13.43	15.62	13.63	14.75	14.37
TOTAL	тне D		Number.		4218	3875	4516	4073	4437	4259
	NETT.		Rate.		14.73	15.32	16.(3	14.92	13.56	13.56
Births.	Z		Number.		4318	4421	4347	4376	4081	4019
	Un- corrected Numbers.				4316	4471	4396	4445	4167	4163
	Population estimated to Middle of each Year.					288,500	289,200	293,254	300,900	296,300
	YEAR.					1928	1929	1930	1931	1932

DISEASE NOTIFIED

INFECTIOUS

OF

CASES

1932.

YEAR

THE

DURING

1316 292 388 336 336 34 34 31 39 2 178 .JATITAOH OT TOTAL CASES REMOVED 438] 00 24 Bowlin 21 Js9W 0 0 253 68 24 17 21 West. 195 3 3 30 30 .SuoT 127 Thornton. 13 376 23 25 South. 3 6 7 -433 Bierley West. North 14 70 14 429 23 Bierley East. North 9 6 29 322 274 North. EACH LOCALITY. 10 122 67 54 17 624 9 Manningham. 13 134 534 Horton. Little 15 27 483 Listerhills. TOTAL CASES NOTIFIED IN 00 292 .əlbI 13 21 331 Heaton. 915 Horton. 58 27 13 Great 78  $\frac{16}{20}$ Exchange. 444 0.1 14 Eccleshill. 122 443 Bowling. 20 37 East 107 19 415 34 East. 110 I Clayton. 575 94 2635 Bradford Moor. 13 12 493 Bolton. ₹ 4 14 459 87 49 Allerton. 2 10 53 87 Over 65. 3 1 3 CASES NOTIFIED IN WHOLE 81 3643 301 413 264 42 to 65. 97 At Ages—Years. 186 933 187 187 187 233 17 97 25 to 45. ī 26 82 90 17 13 72 51 12 to 52. DISTRICT. 673 22 272 161 5 to 15. 976 212 139 5563457 1 to 2. 09 99 76 15 Under 1. Ī 1 321 130 781 255 252 252 312 (21) 56 475 631 8721 At all Ages. Ophth, Neonatorum Infective Enteritis Puerperal Pyrexia Polio-encephalitis Whooping Cough Chicken Pox German Measles Puerperal Fever TOTALS NGTIFIABLE Tuberculosis Tuberculosis Other forms of Cerebro-Spinal Enteric Fever DISEASE. Erysipelas ... Scarlet Fever Meningitis Poliom yelitis Lethargica Encephalitis Diphtheria Pulmonary Pneumonia Dysentery Anthrax Malaria Smallpox Measles

CAUSES OF DEATH AT DIFFERENT PERIODS OF LIFE DURING THE YEAR 1932. TABLE III.

75 and upwards	864	
65 to 75	1073	
55 to 65	767	
45 to 55	449	
35 to 45	238	
25 to 35	152	
15 to 25	123	
5 to 15	65	
2 to 5	49	
1 to 2	35	rost4t=01   = = =
0 to 1	302	
All Ages	4117	1   1   2   2   2   2   2   2   2   2
	:	Dorsalis
Causes of Death	All Causes	Typhoid and Paratyphoid Fevers Measles Measles Scarlet Fever Whooping Cough Diphthera Influenza Encephaltis Lethargica Encephaltis Lethargica Cerebro-spinal Fever Tuberculosis of Respiratory System Other Tuberculous Disease Syphilis Concert Maignant Disease Cancer, Maignant Disease Carbetts Cerebral Paralysis of the Insane, Tabes Di Cerebral Paralysis of the Insane, Tabes Di Cerebral Paralysis of the Syphilis Cerebral Paralysis of the Syphilis Other Circulatory Disease Bronchitis Preumonia (all forms) Other Respiratory Diseases Soptic Uter Respiratory Diseases Other Respiratory Diseases Other Respiratory Diseases Other Pueperal Causes. August and Chronic Nephritis Appendictifs Circulatory Other Diseases of Liver, etc. Other Diseases of Liver, etc. Other Pueperal Causes. Subide Other Violence

TABLE IV.

INFANT MORTALITY, 1932. NETT DEATHS FROM STATED CAUSES AT VARIOUS AGES UNDER 1 YEAR OF AGE.

CAUSES OF DEATH.    3		1	- 1			· ·					
Chicken-pox	CAUSES OF DEATH.	Under 1 week.	1-2 weeks.	2-3 weeks.	3-4 weeks.	Total under 1 month.	1-3 months.	3-6 months.	6-9 months.	9-12 months.	Total Deaths under 1 year.
Chicken-pox	(Smallpoy										
Measles					_						
Scarlet Fever		-			_		_				_
Whooping Cough       —       —       —       —       1       4       2       1       8         Diphtheria and Croup       —       —       —       —       —       —       —       1       1         Erysipelas        —	1 4	-				_			1	0	7
Diphtheria and Croup       —		_				_			_		_
Erysipelas		_	-		_	_	1	4	2		
Tuberculous Meningitis		_	_			_				1	1
Tuberculosis of Intestines and Peritoneum	7 1				_	_	_		_	_	
and Peritoneum		-	-	-	_	—	2	-	2	1	5
Other Tuberculous       Diseases  .	1.5										
Diseases             1        1       1        1       1        1       1        1       1        1       1        1       1        1       1        1       1        1       1        1       1		-			_	_			_	_	_
Meningitis (not Tuber-culous)       2       -       -       2       -       1       1       2       6         Convulsions         7       1       1       -       9       1       4       1       -       15         Laryngitis         -									1		
culous)         2       —       —       2       —       1       1       2       6         Convulsions         7       1       1       —       9       1       4       1       —       15         Laryngitis         —		-		-	_	<b>—</b>		-	1	_	1
Convulsions        7       1       1       —       9       1       4       1       —       15         Laryngitis         — <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>											
Laryngitis			-				_			2	
Bronchitis		7	1	1	_	9	1	4	1	_	15
Pneumonia (all forms)        3       1       —       4       8       11       4       6       10       39         Diarrhœa and Enteritis        —       —       —       1       1       12       5       5       2       25         Gastritis         —		-	-	-	_	<u> </u>		-	_	<b>—</b>	—
Diarrhœa and Enteritis       —       —       —       1       1       12       5       5       2       25         Gastritis        —		-	-	-	_	<u> </u>	2	2		1	6
Gastritis		3	1	-	_	8		_			39
Syphilis         -       1       -       -       1       -       -       -       -       1 <t< td=""><td></td><td><u> </u></td><td>_</td><td>_</td><td>1</td><td>1</td><td>12</td><td>5</td><td>5</td><td>2</td><td>25</td></t<>		<u> </u>	_	_	1	1	12	5	5	2	25
Rickets  <		-	<u> </u>	-	—	—	—	_			_
Suffocation, overlying 2 — — — 2 1 — — — 3 Injury at birth 4 1 1 — 6 — — — 6 Atelectasis 6 — — — 6 — — — 6 Congenital Malformations 16 1 — 1 18 3 2 2 2 2 27 Premature Birth 75 11 6 2 94 3 2 — — 99 Atrophy, Debility and Marasmus 4 2 — — 6 7 3 1 1 18 Other Causes 8 3 — 1 12 4 3 6 3 28	Syphilis	<b> </b> –	1	-	_	1	-	-		-	1
Injury at birth 4 1 1 — 6 — — — 6 6 — — — 6 6 — — — 6 6 — — — 6 6 — — — 6 6 — — — 6 6 — — — 6 6 — — — 6 6 — — — 6 6 — — — 6 6 — — — 6 6 — — — 6 6 — — — — 6 6 — — — — 6 6 — — — — 6 6 — — — — 6 6 — — — — 6 6 — — — — 6 7 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2		<b> </b> —	_	<u>                                     </u>	_	—				1	1
Atelectasis 6 — — — 99 — — — 99 — — — —	Suffocation, overlying	2		-	<del></del>	2	1	_	_	_	3
Congenital Malformations 16 1 — 1 18 3 2 2 2 2 27 Premature Birth 75 11 6 2 94 3 2 — — 99 Atrophy, Debility and Marasmus 4 2 — — 6 7 3 1 1 18 Other Causes 8 3 — 1 12 4 3 6 3 28		4	1	1	<b> </b>	6	—	_	_	_ :	6
tions 16 1 — 1 18 3 2 2 2 2 2 27  Premature Birth 75 11 6 2 94 3 2 — — 99  Atrophy, Debility and Marasmus 4 2 — — 6 7 3 1 1 1 18  Other Causes 8 3 — 1 12 4 3 6 3 28	Atelectasis	6	-	_	_	6	-	_	_	<u> </u>	6
Premature Birth        75       11       6       2       94       3       2       —       99         Atrophy, Debility and Marasmus        4       2       —       —       6       7       3       1       1       18         Other Causes        8       3       —       1       12       4       3       6       3       28	Congenital Malforma-										
Atrophy, Debility and Marasmus 4 2 — — 6 7 3 1 1 18 Other Causes 8 3 — 1 12 4 3 6 3 28	tions	16	1	-	1	18	3	2	2	2	27
Marasmus 4 2 — — 6 7 3 1 1 18 Other Causes 8 3 — 1 12 4 3 6 3 28		75	11	6	2	94	3	2	_	_	99
Other Causes 8 3 — 1 12 4 3 6 3 28	Atrophy, Debility and										
	Marasmus	4	2		_	6	7	3	1	1	18
All Causes 128 21 8 9 165 47 30 29 31 302	Other Causes	8	3		1	12	4	3	6	3	28
All Causes 128 21 8 9 165 47 30 29 31 302											
All Causes 128 21 8 9 165 47 30 29 31 302				-		-					
All Causes 128 21 8 9 165 47 30 29 31 302											
	All Causes	128	21	8	9	165	47	30	29	31	302
						ı				1	

Nett Births in the year—Legitimate, 3789; illegitimate, 230. Nett Deaths in the year—Legitimate infants, 276; illegitimate infants, 26.

TABLE V.

summary of Notifications during the period from 3rd January, 1932, to the 31st December, 1932. Public Health (Tuberculosis) Regulations, 1930.

	Total Notifications (i.e., including	cases previously notified by other doctors)		222	142		69	71
		Total		189	123		09	61
NUMBER OF NOTIFICATIONS ON FORM A Primary Notifications	65 and upwards		6	-		1	1	
	55 to 65		17	12		1	-	
NO S		45 to 55		39	13		67	က
ICATION	tions	35 to 45		42	10		4	-
Notif	Primary Notifications	25 to 35		38	33		က	6
ER OF	rimary 1	20 to 25		15	24		ಹ	6
Nомв	Pı	15 to 20		17	16		က	4
		10 to 15		9	7		13	=
		5 to 10		ಸ್	4		21	17
		1 to 5		-	က		9	٠ç
		0 to 1		1	1		6.1	
	AGE PERIODS		Pulmonary:	Males	Females	Non-pulmonary:	Males	Females

### COMMITTEES

### HEALTH COMMITTEE.

THE RIGHT HONOURABLE THE LORD MAYOR.

Chairman—Alderman H. T. Pullan.

Deputy Chairman-Alderman L. F. W. S. Smith.

### Alderman E. Brooks.

- " W. Donoghue.
- " S. Horsfall.
- ,, G. T. Meggison.
- ,, A. H. Rhodes.
- ,, T. J. Robinson.
- ,, E. Siddle.
- .. A. T. Sutton.

### Alderman M. F. Titterington.

Councillor J. J. Bell.

- ,, F. V. Butler.
- ,, E. Fox.
- ,, T. Keighley.
- ,, J. Lennon.
  - C. Raper.

# SPECIAL ELEMENTARY EDUCATION SUB-COMMITTEE RE MEDICAL AND NURSERY SCHOOLS.

Chairman—Alderman L. F. W. S. Smith.

### Alderman W. Hindle.

- ,, A. Pickles.
- ,, H. T. Pullan.

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- ., H. Drake.
- " E. Fox.
- " W. Leach.
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  - J. T. Waterhouse.
- ., W. Smith.
- ,, H. J. Wilson.

Mrs. G. Smithies.

Mrs. W. Leach.

Mrs. C. E. Hindley.

# JOINT HEALTH AND EDUCATION (CO-ORDINATION) SUB-COMMITTEE.

Chairman-Alderman H. T. Pullan.

Deputy Chairman-Alderman L. F. W. S. Smith.

Alderman E. Siddle.

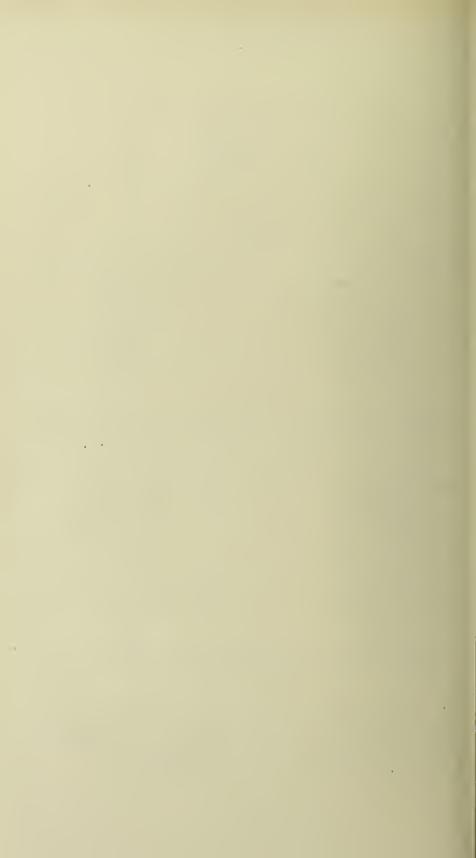
Councillor T. Keighley.

,, J. T. Waterhouse.

Councillor D. H. Waterhouse.

Mrs. Leach.

Mrs. Smithies.





### CITY OF BRADFORD

## ANNUAL REPORT

OF THE

# SCHOOL MEDICAL OFFICER

1932

- 2. CO-ORDINATION.—The School Medical Officer is also the Medical Officer of Health, and there is, as far as possible co-operation between all branches of the Medical Staff dealing with childhood. For this purpose there is a joint Health and Education Medical Sub-Committee, which deals with questions referred from the Education Committee.
- 3. SCHOOL HYGIENE.—On the occasion of each routine inspection of the children at the School the Medical Officer surveys and reports upon the hygienic conditions of the School. In Schools where children have to come from a distance, facilities are provided for the warming of meals brought to School by the children, and where it is necessary arrangements are made for the children to be supervised by a teacher. Tickets for meals, at the Committee's Dining Centres, are obtained by the children in all the schools on payment of full cost, which is very small. The undermentioned table is an analysis of the hygienic conditions tabulated from the summary sheets which are completed by the Medical Officers at the close of each school inspection:—

				Conditio	ns found
ANALYSIS OF SUMMARY SHEETS.					Non-provide
Items in Schools reported on				Schools Inspected	Schools Inspected
Zoono in Donooio Topotosa sii				113	66
1.—Surroundings:—					
				93	27
Open	•••	•••	•••		39
Thickly populated	•••	• • •	•••	20	99
2.—Ventilation:—				0.0	~0
Natural, Satisfactory	•••	•••	•••	83	59
Unsatisfactory	•••	•••	•••	3	7
Artificial, Satisfactory	•••	•••	• • •	11	_
Unsatisfactory	•••	•••		16	_
3.—Lighting:—					
Natural, Satisfactory	•••	•••		108	64
Unsatisfactory	•••	•••		5	2
Artificial, Satisfactory				107	60
Unsatisfactory				6	6
4.—Heating:—					
Satisfactory				105	65
Unsatisfactory	•••			8	1
5.—Furniture:—	•••	•••	•		
(a) Desks: Old-fashioned, Satis	factory	7		3	3
	tisfact.			5	9
Modern Desks, Satis				92	47
	atisfact			13	7
		-	•••	112	65
(b) Blackboards: Wall and Ease					1
0 III / C I .	Ons	satisf'ct	Тy	1	1
6.—Water Supply:—				110	e s
(a) Washing (towels, etc.), Ade		•••	•••	112	65
	dequate	е	•••	1	1
(b) Drinking Cups, Sufficient	•••	•••	• • •	113	65
Insufficient					1

7.—Cloakroom:—	1	
(a) Condition, Satisfactory	104	47
Unsatisfactory	9	19
(b) Arrangements for drying clothes etc.		
Present	49	29
Absent	64	37
8.—Condition and Cleanliness of Walls and Floors:—		
Satisfactory	94	<b>5</b> 6
Unsatisfactory	19	10
9.—Sanitary Conveniences:—		
(a) Lavatories, Satisfactory	106	57
Unsatisfactory	$2 \mid$	$\frac{4}{5}$
Satisfactory, but insufficient	5	
(b) W.C.'s Trough System, Satisfactory	78	41
Unsatisfactory	20	18
Satisfactory, but	_ }	
insufficient	7	4
Automatic Flush	1	3
Individual Automatic Flush	5	
Pail System, Unsatisfactory	2	
(c) Urinals, Satisfactory	89	50
Satisfactory, but insufficient	2	
Unsatisfactory	8	$\frac{6}{5}$
Hand-flushed, Unsatisfactory	_	
10.—Playgrounds, Satisfactory	95	24
Satisfactory, but inadequate	6	16
Unsatisfactory	12	26

A comperison of this Table with the one given in the 1931 Report shows very little change. During the years 1930 and 1931 a large number of improvements in Buildings, Lighting, Desks, Lavatories, Playgrounds, etc., were carried out.

4. MEDICAL INSPECTION.—(a) During the year 1932, a Routine Medical Inspection was carried out in every School in Bradford. The numbers of children examined in the three Code Groups show a decrease of 345 from the number examined in 1931, and those in Other Routine Inspections a decrease of 402. Special and Nursery Schools show decreases of 56 and 106, and those for Secondary Schools an increase of 213, making a net decrease in the total Routine Inspections of 696.

Special Inspections of Elementary School children show an increase of 1,510 in the number of children inspected, and a decrease of 3,978 Re-inspections. Nursery Schools show increases of 241 inspected, and 326 re-inspected. Special Schools show decreases of 395 inspected and 993 re-inspected. Secondary Schools increases of 245 inspected, and 632 re-inspected, making a net decrease of 2,412 in the total number of Special Inspections. The decreases are accounted for by reason of there being one Assistant School Medical Officer less for six months of the year.

The classes of children medically inspected, with the numbers in each class examined, are as follows:—

(1)	Children admitted for the first time during the year (Entrants) $\dots \dots \dots \dots \dots \dots$	3894
(2)	Children 8 years of age (Intermediates)	3954
(3)	Children expected to leave School during the year (Leavers) $\dots$ $\dots$ $\dots$ $\dots$ $\dots$ $\dots$ $\dots$	2673
(4)	Other Ages	949
<b>(5)</b>	Children attending Council Secondary Schools and Bradford Grammar Schools $\dots$ $\dots$ $\dots$ $\dots$	4446
<b>(6)</b>	Candidates for Secondary Schools	1106
(7)	Children attending Nursery Schools	330
(8)	Children attending Special Schools $\hdots$ $\hdots$	283
	Total	17,635

- (b) There has been no material departure made from the Board's schedule of inspections.
- (c) Grave defects are in a large number of cases recognised in Bradford before the children arrive at School age through the agency of notification, health visitors, maternity and child-welfare centres and the like. On admission to School all grave defects noted by the School Teachers are notified to the School Medical Officer, and the children examined at once. A census of all children in the City of school age is taken biennially by the School Attendance Officers, and children who have reached five years of age and whose names are not on any School Register for mental or physical reasons, are reported to the School Medical Officer, who has each case either medically examined at the Clinic or obtains satisfactory medical evidence that the child is not fit to attend School. Many of these cases are treated at the School Clinics or Hospitals under the Authority's Scheme.

### 5. FINDINGS OF MEDICAL INSPECTION:-

CLOTHING AND FOOTGEAR.—Records of the 17,635 children examined at the Routine Medical Inspections during the year again show a decrease in the percentage of children found to have inadequate or unsuitable clothing.

The following Table records the findings of the School Medical Officers at the Routine Inspections:—

Code Group	Numbers	Inac		othing or unsui	table .	Footgear Inadequate or unsuitable				
	Inspected	В	G	T	%	В	G	T	%	
Entrants	3894					1	_	1	0.03	
Intermediates	3954	1	_	1	0.03	4	1	5	0.13	
Leavers	2673	1		I	0.04	4		4	0.15	
Other Ages	949	_				_	-			
Special Schools	283	<b> </b> —		_	_	_	_		-	
Junior Scholarships	1106			_	_	—				
Secondary Schools	4446				-	—	_	-		
Nursery Schools	330	_			-	—	_	-	_	
Totals	17635	2		2	0.01	9	1	10	0.06	

NUTRITION.—The percentage of children found to be below normal Nutrition at the Routine Medical Inspection during 1932 gives a decrease of 2·51 per cent. on the number found in 1931, 4·52 having been found below normal in 1932, as against 7·02 per cent. in 1931. At the Special Inspections held at the School Clinics, 485 Elementary and 9 Secondary School children were found to be suffering from this condition, against 367 Elementary and 26 Secondary in the year 1931. The following Table records the findings of the School Medical Officers at the Routine Inspections:—

	Numbers		Воу	s		Girls				
Code Group	In- spected	Above Nor- mal	Normal	Below Nor- mal	Em- acia- ted	Above Nor- mal	Normal	Below Normal	Em- acia- ted	
Entrants	3894	234	1639	91		300	1415	73	_	
Intermediates	3951	266	1564	137	1	344	1453	141	-	
Leavers	2673	313	938	94	_	321	920	73	_	
Other Ages	949	68	349	28	1	102	359	30		
Special Schools	283	14	101	5	-	29	118	13	-	
Junior Scholarships	1106	120	453	19	_	68	444	1	-	
Secondary Schools	4446	577	1693	60	-	148	1875	6	-	
Nursery Schools	330	22	131	10	-	20	120	14	-	
Totals	17635	1614	6868	444	2	1332	6704	351	-	

<sup>(</sup>a) UNCLEANLINESS.—It is again gratifying to note that the gradual improvement which has taken place for a number of years in the cleanliness of children has been maintained. The following Table of Routine Inspections record that out of 17,635 children inspected, no boys were found to have uncleanliness of head and only 29 girls, 0·16 per cent., and 14 boys and 14 girls uncleanliness of body, 0·16 per cent.

The percentages for the seven years previously show the improvement:—

1931	Head	0.44,	Body	0.24.	1927	Head,	0.92,	Body	0.54
1930	,,	0.59,	,,	0.37.	1926	,,	2.01,	,,	1.62
1929	,,	0.60,	,,	0.31,	1925	,,	3.48,	,,	$2 \cdot 37$
1928	,,	0.72,		0.34.					

In taking a review of the question of uncleanliness one must not lose sight of the fact that when a Routine Inspection is going to take place in any school, the parent receives a notification that the child is going to be inspected and in most cases the children are sent cleaner on the day the inspection is to take place than on other days. A more reliable figure respecting uncleanliness is got from the Nurses' Inspections re cleanliness, which will be found in paragraph 7 (Following-Up).

When a nurse goes to a school to inspect the children re cleanliness, the parent has received no notice, is not present and the child is seen unprepared.

From the record of the Nurses' Inspections it will be found that 4,461 children were found with uncleanliness of head and 435 with uncleanliness of body against 6,628 and 958 in 1931.

Code Group	Numbers In-		He	ad		Body			
	spected	В	G	Т	%	В	G	Т	%
Entrants	3894		7	7	0.18	4	7	11	0.28
Intermediates	3954		7	7	0.18	4	3	7	0.18
Leavers	2673	l (	9	9	0.34	5	2	7	0.26
Other Ages	949		3	3	0.32	-			I —
Special Schools	283	<b> </b>			_			( — I	
Junior Scholarships	1106		— Y	_	_	1	1	2	0.18
Secondary Schools	4446	<u>  -  </u>	3	3	0.07		1	1	0.02
Nursery Šchools	330					-		-	
Totals	17635		29	29	0.16	14	14	28	0.16

- (b) MINOR AILMENTS.—It will be seen from Table IV, Group 1, that 10,008 defects in Elementary School children and 473 defects in Secondary School children were treated at the School Clinics during the 1932, against 8,993 Elementary and 486 Secondary in 1931, an increase of 1,015 Elementary and a decrease of 13 Secondary.
- (c) Tonsils and Adenoids.—At the Routine Inspections 2,159 Elementary and 319 Secondary School children were found to have enlarged Tonsils and Adenoids, of whom 1,305 Elementary and 174 Secondary were referred for treatment. At the Special Inspections held at the School Clinics, 434 Elementary and 29 Secondary School children were found, of whom 392 and 27 respectively were referred for treatment.

These figures vary from those of 1931 as follows:—Routine Inspections, Elementary, a decrease of 7 children found; Secondary, an increase of 65. During the year 755 Elementary and 19 Secondary School children received operative treatment for Tonsils and Adenoids under this Authority's Scheme. The figures for 1931 were 809 Elementary and 22 Secondary which record a decrease of 54 Elementary and 3 Secondary.

In addition to the above-mentioned, 2 Elementary School children received other operations to Nose and Throat under this Authority, and 31 Elementary and 2 Secondary School children received operative treatment by private practitioners or at hospital

Out of a total of 807 children who are recorded to have received operations, 774 were done by this Authority and 33 by private practitioners or at hospital.

(d) Tuberculosis.—13 Elementary School children were found at Routine Inspections to be suspected of Pulmonary Tuberculosis and 1 case of Definite Pulmonary Tuberculosis. At the Special Inspections held at the School Clinics, 14 Elementary School children were found with Definite Tuberculosis and 38 Elementary and 1 Secondary were found with Suspected Pulmonary Tuberculosis.

The above-mentioned figures total 87, against 60 in 1931, 112 in 1930, and 96 in 1929. Children suspected to be suffering from Tuberculosis are referred to the Anti-Tuberculosis Centre, where a Special Clinic is held each Thursday at 9.30 a.m. These cases are generally admitted to Grassington Sanatorium School, of which particulars will be found in paragraph 17, Section 5, pages 44 and 45.

There were 10 Elementary and 1 Secondary School cases of Non-Pulmonary Tuberculosis found at the Routine Inspections, 5 of which were referred for treatment. From the Special Inspections at the School Clinics, 20 Elementary and 2 Secondary School cases were found; 17 of them being referred for treatment and 5 for observation only. These figures record a decrease of 9 Elementary found at the Routine Inspections, a decrease of 15 Elementary and an increase of 1 Secondary at the Special Inspections.

(e) Skin Disease.—At the Routine Inspections 334 Elementary and 123 Secondary School children were found with skin diseases; 309 Elementary and 101 Secondary were referred for treatment, whilst 25 Elementary and 22 Secondary required to be kept under observation.

At the Special Inspections, 1,927 Elementary and 42 Secondary School children were found; 1,919 Elementary and 42 Secondary required treatment and 8 Elementary observation only. These figures show a net increase of 276 children found with skin diseases compared with those for 1931.

Particulars as to the diseases from which these children suffered will be found in Table II, and those treated in Table IV, Group 1.

(f) EXTERNAL EYE DISEASE.—192 Elementary and 34 Secondary School children were found at the Routine Inspections to be suffering from this disease, whilst 753 Elementary and 19 Secondary School children were discovered at the Special Inspections held at the School Clinics. These figures show a net increase of 241 from those of last year.

It will be also found in paragraph 7b that 423 external eye defects were discovered in Schools by the Nurses, most of which come under the heading of Special Inspections at the School Clinics. A good number of these cases are also referred to the School Clinics by School Attendance Officers and Teachers.

(g) Vision.—It will be noticed from Table II that 637 Elementary and 648 Secondary School children were found at the Routine Inspections to require treatment for Defective Vision, not including 125 Elementary and 2 Secondary who required treatment for Squint. At the Special Inspections, 2,108 Elementary and 125 Secondary were referred for treatment of vision.

The figures for the Routine Inspections show a decrease of 255 Elementary and an increase of 185 Secondary; those for Special Inspections show an increase of 249 Elementary and a decrease of 108 Secondary School children.

The reason for the numbers under the heading of Special Inspections being so much larger than those found at the Routine Inspections is that the vision of all Elementary School children who do not come within the Code Groups for Medical Inspections is tested annually at the Schools by the Nurses, and if they cannot read the Snellen's Test at 6/12 they are referred to the School Clinic for a further test by the Medical Officer.

(h) EAR DISEASE AND HEARING.—From the Routine Inspections 181 Elementary and 29 Secondary School children were found to be suffering from ear diseases or defective hearing, of whom 147 Elementary and 23 Secondary were referred for treatment, and 34 Elementary and 6 Secondary placed under observation. At the Special Inspections 798 Elementary and 37 Secondary School children were found, of whom 793 and 36 Secondary were referred for treatment, and 5 Elementary and 1 Secondary were placed under observation.

The figures for Routine Inspections are similar to those for 1931, but those found at the Special Inspections show an increase of 136 Elementary and 24 Secondary. As in the case of External Eye Diseases, most of the special cases found in the Schools by the Nurses are referred to the School Clinics; this accounts for the small numbers found at the Routine Inspections.

(i) Dental Defects.—In addition to the annual inspection carried out by the School Dentists, the Doctors make an examination of each child's mouth at Routine Inspections. The numbers of children sofound with dental defects during the past three years are shown in the appended Tables:—

1932	Numbers Inspected	Less than four teeth decayed	More than four teeth decayed	Oral Sepsis
Boys Girls	9035 8600	2689 2780	264 339	6 8
Totals	17635	5469	603	14

1931	Numbers Inspected	Less than four teeth decayed	More than four teeth decayed	Oral Sepsis
Boys Girls	9561 8770	1915 2558	233 253	2 8
Totals	18331	4473	486	10

1930	Numbers Inspected	Less than four teeth decayed	More than four teeth decayed	Oral Sepsis
Boys Girls	8630 8232	2099 2236	301 293	2 3
Totals	16862	4335	594	5

(j) Crippling Defects.—At the Routine Inspections during the year 1932, 85 Elementary and 13 Secondary School children were found to require treatment; and 77 Elementary and 21 Secondary School children were required to be kept under observation on account of Organic Heart Disease. There were also 19 Elementary and 3 Secondary School children referred for treatment, and 46 Elementary and 2 Secondary for observation from Special Inspections.

The aforementioned figures vary from those of 1931 as follows:—Routine Inspections, Elementary, an increase of 36 referred and a decrease of 40 for observation; Secondary, an increase of 1 referred and a decrease of 2 for observation. Special Inspections, Elementary, an increase of 11 referred and an increase of 33 for observation; Secondary, an increase of 1 for observation.

The number of cases found at the Routine and Special Inspections of children suffering from Crippling Defects caused by Rickets, Spinal Curvature and other forms, which are not mentioned above, for the last four years are shown in the following Table:—

		Elementar	y School	s		Secondary :	Schools	
		utine ection		ecial ection		utine ection	Spec Inspec	
Defect or Disease		o, of efects		of fects		o. of fects	No. Defe	
	For Treat- ment	For Observa- tion	For Treat- ment	For Obser- vation	For Treat- ment	For Observa- tion	For Treat- ment	For Obser vation
1932 :—								
Deformities :-								
Rickets	48	84	12	9	3	29		_
Spinal Curvature	239	47	11	3	66	37	14	2
Other Forms	114	115	37	33	68	62	_	2
1931 :								
Deformities:—								
Rickets	51	73	8	6	14	18		_
Spinal Curvature	148	96	21	2	69	53	14	_
Other Forms	93	173	67	30	68	64	_	4
1930 :								1
Deformities:—								
Rickets	66	86	10	7	_	17		1-
Spinal Curvature	193	35	40	2	51	32	18	2
Other Forms	110	168	73	31	115	100	<u> </u>	1
1929 :						1		1
Deformities :—								
Rickets	80	53	47	9	3	14	1	l
Spinal Curvature	252	48	90	7	50	22	30	3
Other Forms	169	167	52	25	111	102		1

The noteworthy feature of this table is the steady fall in the number of cases of rickets.

- (k) EPILEPSY.—From the Routine Inspections in Elementary Schools, 6 children were referred for treatment and 3 required to be kept under observation who were suffering from Epilepsy. From the Special Inspections, 15 Elementary School children were referred for treatment, and 10 to be kept under observation; these figures total 34, compared with 31 in the year 1931. In addition to these there were 2 Secondary School children found at the Routine Inspections and 1 at the Special Inspections, all requiring to be kept under observation. These figures were the same in 1931.
- 6. INFECTIOUS DISEASES.—The exclusion of children suffering from, or in contact with, persons suffering from infectious disease for prescribed periods has been carefully carried out, and frequent additional visits to Schools have been made by the Medical Staff on this account.

Notifiable Infectious Diseases are all notified to the Medical Officer of Health by Assistant School Medical Officers and Private Practitioners. All cases notified to the Medical Officer of Health are visited by the Health Visitors, or Sanitary Inspectors, who give advice to parents and guardians of children, respecting the care of the patients and the welfare of those in contact with the disease, and take steps, in cases necessary, for removal of the children to hospital. The Health Visitor also issues a notice excluding the patient and those in contact from attendance at School. During the year 3,070 exclusion notices were issued by the Health Visitors, a decrease of 254 from 1931.

In cases visited by the Sanitary Inspectors on account of Scarlet Fever, Small-Pox, or other fevers, exclusion notices are also issued by the Medical Officer of Health for children suffering or children who may have been in contact with those suffering from the disease. 3,090 notices were issued by the Medical Officer of Health. This figure records an increase of 141 from 1931.

During the year 31 Infants' Schools were granted certificates of exemption in accordance with the Board of Education's Code of Regulations for periods aggregating to 118 weeks, compared with 39 Infants' Schools and 145 weeks during the year 1931.

It was not found necessary to close any Schools on account of infectious diseases.

The diseases for which certificates of exemption were granted and the number of Schools infected, often with more than one disease, were as follows:—

			No. of Infants' Schools Infected.										
Disease			1932	1931	1930	1929							
Measles	•••		23	22	19	35							
Chicken-Pox			17	19	10	27							
Mumps			18	5	1	23							
Whooping Cough	•••		15	10	18	19							
Influenza			8	18	2	31							
Scarlet Fever			16	12	3	22							
Diphtheria			8	2	3	6							

7. FOLLOWING UP.—When a child is found in School presenting a physical defect, the parents or guardians are informed by circular and recommended to consult a Medical Practitioner without delay, or take the child to the School Clinic on the following Wednesday or Saturday morning, when arrangements will be made for treatment. At the Medical Inspections of school children a list of defects is also recorded, from which necessary appointments for treatments are made.

This list is afterwards kept for the prupose of following up the cases, keeping cases under observation, and recording the result and date of treatment. The result of the treatment is afterwards entered on the Medical Schedules, and Record Cards at the School Clinics.

Systematic re-inspection and home visitation is undertaken by the Nurses to follow up all cases.

The records taken from the Nurses' weekly duty sheets show a decrease from 1931 of 804 visits to Schools, 34,629 less examinations in Schools and a decrease of 746 visits to homes. The result of less visits to Schools has decreased the numbers of children found to be suffering from the defects mentioned below by 8,288 under the figures for 1931, or the reduction of defects found may be partly caused by an improvement in the conditions of the children. The reason for less visits to Schools is caused by a reduction in the Staff of Nurses.

(a) RECORD OF VISITS FOR 1932.

(1)	Visits to Schools	•••	•••		2303
(2)	Children examined	•••	•••	•••	172369
(3)	Visits to Homes	•••	•••		1458

(b) Defects Discovered.

	(0) DELLEGI	2 2 100	·	· CLL			
(1)	Malnutrition		• • •	29	(7) Sore Eyes		423
(2)	Uncleanlines	s (Hea	d)	4461	(8) Defective Vision		349
(3)	Uncleanlines	s (Bod	y)	435	(9) Squint		99
(4)	Ringworm	•••	•••	27	(10) Running Ears		260
(5)	Scabies	•••	• • •	109	(11) Infectious Disease	es	28
(6)	Impetigo	•••		786	(12) Other Conditions		1282

- 8. MEDICAL TREATMENT.—There are now four School Clinics in Bradford, a Central Clinic at 28a, Manor Row, and Branch Clinics at Green Lane, Lapage Street, and 20, Edmund Street. Under the coordination of medical work, arrangements have been made for the treatment of certain defects at places mentioned below:—
  - (a) Minor Ailments ... School Clinics.
  - (b) Tonsils and Adenoids Special Hospital, Leeds Road.
  - (c) Tuberculosis ... Anti-Tuberculosis Centre and Grassington Sanatorium.
  - (d) Skin Disease ... ... School Clinics.
  - (e) External Eye Disease School Clinics, Ophthalmic Clinic, Edmund Street and Municipal General Hospital (St. Luke's).
  - (f) Vision ... School Clinics, Ophthalmic Clinic, Edmund Street and Municipal General Hospital (St. Luke's).
  - (g) Ear Disease and Hearing ... School Clinics and Special Hospital (Leeds Road).

- (h) Dental Defects ... Central Clinic.
- (i) Crippling Defects and
  Orthopædics ... Central School Clinic, School for Physically Defectives, Lister Lane and
  Municipal General Hospital (St.
  Luke's).
- (j) Marasmus, Rickets,Anæmia, and SkinDiseases ... Central School Clinic. U.V. and X-Rays.

The cases of defects that have attended the School Clinics since 1908 are shewn in the following table :—

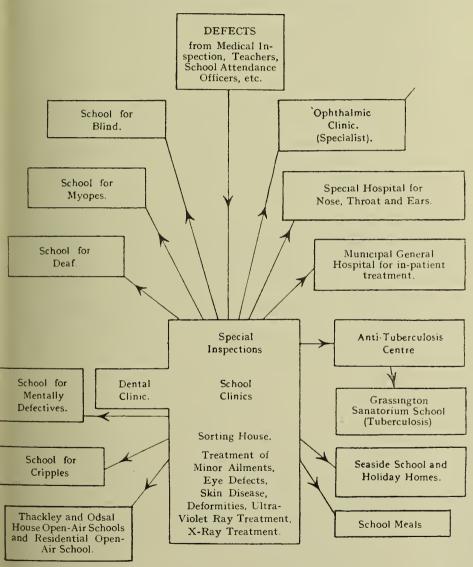
Year	Treated	Examined only on first attendance	Total Attendances	Attendances per week		
1908	841	590	4050	122		
1909	2323	1325	14516	329		
1910	3520	2772	19315	439		
1911	5019	2655	20325	462		
1912	6279	3095	25579	581		
1913	8004	4333	34940	791		
1914	13991	4155	46982	1068		
1915	12469	2769	43346	985		
1916	14559	3552	38051	865		
1917	12890	3056	44289	1006		
1918	9954	3164	35256	801		
1919	16459	4177	44876	1019		
1920	22114	5894	61565	1502		
1921	25460	6364	75209	1791		
1922	23718	4158	71663	1706		
1923	20255	4811	71646	1706		
1924	23013	6176	76476	1821		
*1925	37850	7327	88111	2050		
*1926	35007	9352	91477	2178		
*1927	34180	8279	99449	2368		
*1928	33031	9517	94080	2240		
*1929	37613	9937	110333	2627		
*1930	31961	7431	123514	2941		
*1931	30509	8697	118793	2829		
*1932	32512	7526	114397	2724		

<sup>\*</sup> Includes Dental Cases which were not included in first two columns in previous years. This of course duplicates many of the cases as children often come for both Medical and Dental treatment during the same year.



# DIAGRAM ILLUSTRATING HOW THE VARIOUS DEFECTS ARE REFERRED AND TREATED UNDER THIS AUTHORITY'S SCHEME.

### MEDICAL INSPECTION IN SCHOOLS.



The following table records the attendances at the School Clinics during 1932 and includes cases referred from School Medical Inspection.

									10																		
		Total Attendance All Cases	16	35			_	10	61	98	304	35	36	- 1	]	- 1	1843	2	25	20	346	46	156	4	21	269	57
ren	Cases	Examined and treated	15	26	1	-	າວ	4	50	72	215	20	27	T	T	Ī	857	_	10	10	325	17	118	2	1	191	45
Child	Old	Referred for treatment	14		T	Ī		-	1	Ī	ന		I	Ī		1	55		7	_	2	- 1	4	1	-	_	I
chool		To be kept under observation	13				Î						Ï	Ī		T	131			Ī		2	7	Ī		T	-
Secondary School Children		Tota: Attendances New Cases	12	6		-	2	9	11	26	86	15	0	Π			800	_	14	6	19	27	33	2	13	22	12
Seco	Cases	Examined and treated	Π	000	-			9		26	83	15	6	1	-		618	_	13	000	19	24	29	2	5	74	61
	New	Referred for treatment	10		ſ	i	1	T	Ī	1	က	$\Box$	Т			ſ	90	T	П	Ĩ	Ï	2	က		1	က	-
		To be kept under observation	, G	-	1			T		1		İ		T	-	1	92	T	-	_	I	_	_		1	T	Ī
		Total Aftendances sesso IIA	, &	1879	347	43	570	532	962	7043	2842	864	474	30	œ	4	7329	327	733	259	9157	637	1645	248	587	7380	1548
	Old Cases	Bas bannas H treated	7	1130	164	21	459	384	721	5898	2053	520	307	20	50	1	3428	121	391	149	8573	409	1001	113	227	6227	1169
ildren	Old	Referred for	- 9	14	T	T	13	4	C)	9	12	1	T	_	-	_	339	37	ಣ	က	11	7	22	_	51	6	- Comment
hool Ch		To be kept under observation		20	i	1	က			T	_	1	23	7	_	T	418	16	7	01	T	1	11		က	22	-
Elementary School Children		Total Attendances New Cases	4	730	183	22	95	144	239	1139	216	344	165	∞	7	က	3144	153	338	105	573	227	521	134	306	1142	988
Elem	Cases	Examined and treated	60	633	174	22	79	138	234	1138	761	343	160	9	9	2	2136	7.1	322	86	571	219	349	94	117	1098	XLX
	New	Referred for treatment	0.1	96	Ī	1	14	_	一	_	12	_	70	ठा	1	1	637	45	П	16	2	9	142	35	175	41	7
		To be kept under observation	1		6		2	20	4	Τ	ಣ	Ī	1		_	-1	371	37	ಬ	က	Ī	01	30	5	14	ಣ	100000000000000000000000000000000000000
		Defects or Diseases		Malnutrition	Uncleanliness:—Head	.0	Skin:—Ringworm, Head	Ringworm, Body	Scabies	Impetigo	Other Diseases (Non T.B.)	Eye:—Blepharitis	Conjunctivitis	Keratitis	Corneal Ulcers	Corneal Opacities	Defective Vision	Squint		Ear: —Defective Hearing	Otitis Media	Other Ear Diseases	Nose and Throat: -Enlarged Tonsils		Enlarged Tonsils and Adenoids	Other Conditions	Chilarged Cervical Grands Live

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	7.7.	_	83	104	1224	853	864	15	69		91	67	22	T	_	67	28	193	195	56	160	154	118	885	3035	0109	806	3612	4901	4943.1
-	Q		31	41	931	778	786	9	17		8	П	07	T	1	Τ	12	122	142	39	132	79	14	609	2239	5973	-	3612	4901	301373
Ī	B		9	20	260	61	72	9	33		20	-	T	T	_		9	34	40	$\infty$	25	42	56	32	655	34	-	1	1	656
	1.		46	43	33	14	9	ಣ	19		ಣ	_	1	T	Τ	T	10	37	13	0	ಣ	33	78	241	141	ಣ	806	1		1502
	Detective speech	Heart and Circulation :-	Heart Disease:—Organic		Anæmia	Lungs:—Bronchitis	Other Non-T.B. Diseases	nonary	Pulmonary Suspected	Non-Pulmonary:	Glands	Spine	Hip	Other Bones & Joints	Skin	Other Forms	Nervous System:—Epilepsy		Other Conditions	Deformities:—Rickets	Spinal Curvature	Other Forms	Mental Condition	:	Diseases	Minor Ailments	:	Teeth:—Cases treated by appointment	Emergency Cases (Ĉasuals)	Totals 21

In addition to the attendances recorded in the preceding table, the following Medical Inspections were conducted at the School Clinics:

(1) Children examined as to their suitability for	Elem.	Secy.
admission to Secondary Schools	1106	
(2) Re Bursarships		24
(3) From School of Art (Routine Medical Inspection)		81

The following table shows the examinations made in connection with Special Schools, transference to Convalescent Homes, employment of children and continued attendance at Secondary Schools. These have been analysed under the defects found or no defect found and are all included in the previous table.

Object	of E	xamination				Number of Children	Total Attendances
Transference to Special	Sch	ools :—					
Mentally Defective		•••	•••		• • • •	52	56
Blind, Deaf and Crip	ple	•••		•••	•••	85	85
Thackley and Odsal (		-Air Scho	ools		• • •	844	845
Transference to Conv						618	649
Transference to Instit	tutio	ns	•••	•••	• • •	5	5
Transference to Nava	l Tra	aining Scl	hools	•••	• • •	1	2
Continued attendance				ondary	and		
Special Schools:—		<b>'</b>		J			
**** . O. 1 . 1		•••				1	1
		•••		•••		8	8
Secondary Schools		•••				23	24
Myope School				•••		28	29
Open-Air Schools (Th	ackl	ev and O	dsal)	•••		93	98
Lister Lane School fo						39	39
Margaret McMillan So					res	6	7
Bolton Royd Deaf Sc			•••		•••	1	1
Nursery Schools	•••	•••	•••	•••		2	2
Employment at Theatre		***				$9\overline{1}$	93
Certificates for Printing		de .		•••		4	4
		•••		•••		$2\overline{4}$	$2\overline{4}$
~ ~ ~ ~ ~ ~		•••	•••	•••		18	19
Totals	•••	•••	•••		•••	1943	1991

Of the 618 children examined re transference to Convalescent Homes:—

<sup>421</sup> were for Craig Home, Morecambe.

<sup>197</sup> for the Charity Organisation Society,

### EXCLUSIONS FROM SCHOOL.

During the year 14,129 exclusion notices have been issued from the following centres, compared with 15,181 in 1931, 16,257 in 1930, 15,025 in 1929 and 13,501 in 1928.

			1932	1931	1930	1929
Central School Clinic	•••	•••	1474	2483	3082	3031
Green Lane School Clinic		• • •	1081	1340	1324	998
Lapage Street School Clinic		•••	2799	2632	2894	3158
Edmund Street School Clinic			1778	1391	1364	926
Health Visitors, Edmund Stre	eet	• • •	3070	3324	3500	4656
Special Hospital, Leeds Road	• • •	• • •	595	741	846	853
Anti-Tuberculosis Centre	•••		197	296	322	142
Lister Lane School for	Phys:	ically				
Defectives			45	25	42	49
Health Department	•••	•••	3090	2949	2883	1212
Totals	•••	•••	14129	15181	16257	15025

### MEDICAL GYMNASTICS AND MASSAGE.

This treatment is carried out at the Central School Clinic and Lister Lane School for Physically Defectives.

The following tables give the number referred and the number treated at the Central School Clinic:—

Cases treated and discharged cured		•••	• • •		431
Cases treated and discharged impro-	ved	•••	•••	•••	41
Cases treated and referred to Lister	Lan	e School	for Ph	ysic-	
ally Defectives for completion	• • •			•••	11
Cases treated who left School (ove	r ag	e) before	treat	ment	
was completed	•••	•••	• • •	•••	1
Cases withdrawn from treatment	by p	parents b	efore	com-	
pletion				•••	24
Cases treated and carried forward	to	1933 for	conti	nued	
treatment	• • •	•••	•••	• • •	47
Total number of cases referred	• • •	•••	•••	•••	555
		Bovs	Gi	rls	Total
Total number of attendances		2656	28	392	5548

Classification of the 555 cases treated:—

Disease	Number	Disease	Number
Scoliosis Kyphosis Chest Deformities Foot Deformities Rheumatism	. 96 . 14 49	Paralysis Recent Injuries Post Tonsillectomy Cases Rickets	 12 33 286 2

The above figures show a decrease of 24 children treated, and an increase of 53 attendances compared with the year 1931.

### TINEA (RINGWORM) OF THE HEAD AND X-RAY TREATMENT.

X-Ray treatment for Ringworm of the Head still continues with the successful results that have been experienced ever since the apparatus was installed in the year 1910. There is now no difficulty in obtaining the consent of the parent to allow this treatment to be given to the child. Almost immediately any child is suspected to have Ringworm of the Head it is brought to the School Clinic, where samples of hair and spores are taken and examined under the microscope, and if it is found to be positive Ringworm, treatment is arranged for. Children are also referred by Private Practitioners to the School Clinic for this treatment.

From Table IV, Group 1, it will be noticed that 64 Elementary, Special and Nursery, and 2 Secondary School children were treated for Ringworm of the Head, of these 45 received X-Ray treatment, most of the remaining 19 were cases which had been diagnosed at Branch Clinics as Ringworm, after a microscopical examination of specimens of the hair and spores at the Central Clinic were found to be negative. The average length of time from commencement of treatment until readmission to School of the 45 cases treated with X-Rays was 21·8 days, compared with 20·83 days in 1931 and 22·03 in 1930.

All the children were re-inspected about six months after treatment, and full re-growth of the hair had occurred in all cases.

### PROVISION OF SPECTACLES.

It will be noticed from Table IV, Group 2, that most of the spectacles were provided by this Authority.

A contract is made by the Education Committee with a local Optician for the supply of spectacles at a reduced rate.

It will also be seen from Table IV, Group 2, that during the year 2004 Elementary and 431 Secondary School children were supplied with spectacles by this Authority, against 2302 Elementary and 480 Secondary in 1931 and 2337 Elementary and 393 Secondary in 1930.

Of the 2435 supplied, in 1882 cases parents paid the full cost to the Authority. 48 pairs were for children at the Myope School, where Spectacles are provided, free of charge, as part of the treatment, and in 348 cases the cost of the spectacles was remitted by the Committee after a full enquiry into the family circumstances had been made, while in 6 cases the Committee remitted part of the cost. In 151 cases the accounts were carried forward to the year 1933.

In addition to these 293 pairs of spectacles were repaired, or in some cases second pairs of spectacles were provided for the Myope School children, and 1566 repairs or second pairs for children attending ordinary Elementary and Secondary Schools: of these 1268 were paid for by the parents, 245 in which the cost was remitted by the Committee, 1 case in which part of the cost was remitted, and 52 cases were carried forward. These make a total of 4294 pairs of spectacles supplied during the year, against 4579 supplied in the year 1931.

### ULTRA VIOLET RAYS TREATMENT.

Ultra Violet Rays treatment is given at the Central School Clinic. During the year 1932, 589 children received this treatment; 361 cases were completed, 114 cases were treated but for various reasons failed to complete the course, and 114 cases were carried forward to 1933. Of the 361 cases completed, 88 received other forms of treatment, and 273 cases received sunlight treatment only. A few cases were admitted to Open-Air Schools, and were discharged in consequence before treatment was completed, and are not included in these figures.

A short dose is given at the first attendance, and this is increased gradually to a maximum of five minutes.

The following tables give particulars of treatment and the results.

CASES TREATED BY ARTIFICIAL SUNLIGHT ALONE.

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### DENTAL REPORT.

By H. V. Morrell, L.D.S., R.F.P.S. (Glasgow).

This Department continues to meet a great need amongst the school children in the City, and the work has been carried out as in previous years. The children have responded well to treatment, and as each year passes, they appear to appreciate more and more the value of dental hygiene.

The year has been noticeable by a large increase in the number of special cases, *i.e.*, patients who attend the Clinic voluntarily for treatment and advice, but this is only a natural sequence when all the circumstances have been considered.

One dental surgeon resigned his position as Assistant Dental Officer on 31st August, 1932, the vacancy being filled again on 19th October, 1932. During the interim the two remaining dental surgeons were compelled to devote more time to treatment, and were only able to carry on under difficulties, and this accounts for the large amount of work done in relation to the number of cases inspected. However, attendances are now assuming more reasonable proportions, and we are able to carry out again our usual Routine Inspections.

In the early stages of dental caries there is an entire absence of pain or discomfort, and unless the trouble is located at a Dental Inspection, the patient is often unaware that the teeth are decaying. In the later stages of the disease, pain sets in, but by this time the removal of the teeth is the only cure in the majority of cases. This absence of pain is one of the causes of the difficulty experienced in persuading parents of the necessity for filling teeth at the very onset of the decay.

It is fully realised that the treatment of casual cases is a difficult problem, but when one considers the large school population of Bradford, the small number of dental surgeons employed, the prevailing poverty due to economic conditions and the fact that there is not a Dental Hospital in the City, it would certainly be unjust and unwise to penalise children who seek our aid in their distress, because they have not an appointment owing to the indifference of the parent in not signing the acceptance form or for some other unfortunate reason.

A brief summary shows that the operations performed comprised 4,455 fillings, 3,910 extractions of permanent teeth, 11,670 extractions of temporary teeth, 9 extractions of supernumerary teeth, 85 scalings, 1,234 dressings of Silver Nitrate and Iodine, and 2,239 administrations of Nitrous Oxide.

The extractions were in all cases treated with anæsthetics, either local or general, according to the operation and condition of the parent. General anæsthetics are given for the more serious extractions on Tuesday and Friday mornings, as before, except in the cases of pain, when the operation is done immediately after receiving the parent's sanction. General anæsthesia is produced by means of Nitrous Oxide, and is administered by dental surgeons, who for this purpose work in pairs, one acting as Anæsthetist, and the other as Operator.

The total number of children from the Secondary Schools attending the Dental Clinic was 800, and all accepted treatment.

Short talks with the children in class at the time of inspection, and individual chats and chairside demonstrations with the parents have been our principal mode of propaganda during the year, and we are hoping to present the Dental Board's exhibits and lectures in various parts of the City this year.

That the necessity of looking after the teeth of their children is becoming more generally recognised by parents is shown, not only by the increase in the proportion of acceptances, but also by the number of parents, who make application at the Office, or through the School Teachers on behalf of children who have not been recently examined.

In conclusion, it is gratifying to note that the percentage of children receiving dental treatment at the Clinic to those found to require treatment, is 78.81 per cent. This is extremely satisfactory, and is higher than in any previous year.

### SPECIAL OPHTHALMIC CASES.

### By W. OLIVER LODGE, M.D., F.R.C.S.

Cases are referred by the School Medical Officers to the Ophthalmic Surgeon at the Ophthalmic Clinic, Edmund Street, each Thursday at 2 p.m. Cases requiring operations or hospital treatment are dealt with at St. Luke's Hospital. The consulting Surgeon also visits, as required, the Myope School.

the myope school.	Child-	Attend-
1. Total cases from all sources seen at Special	ren	ances
Ophthalmic Clinic	236	369
2. Total cases referred from School Clinics seen		
at Special Ophthalmic Clinic	128	171
(a) Defective Vision and Squint	117	158
(b) External Eye Diseases	11	13
3. Total cases referred from the Myope School		
seen at Special Ophthalmic Clinic	$\frac{2}{2}$	3
(a) Defective Vision and Squint	2	3
(b) External Eye Diseases	_	
4. Total cases under 5 years (from Nursery		
Schools, etc.) seen at Special Ophthalmic Clinic	106	195
(a) Defective Vision and Squint	80	143
(b) External Eye Diseases	26	52
5. In-patients (St. Luke's Hospital) admitted		
from Special Ophthalmic Clinic	56	
Operations for:—		
(a) Strabismus	27	
(b) Obstruction of lachrymal passages	9	
(c) Cataract	8	
$(d)$ Other disease $\cdots \cdots \cdots$	12	

### ORTHOPÆDIC CASES.

By Mr. F. W. GOYDER, M.B., F.R.C.S., Consulting Orthopædic Surgeon.

Lister Lane School.—The Orthopædic Surgeon has made 37 Routine Visits to this School as against 39 in 1931. 336 examinations were made of which only 14 compared with 25 in 1931 were new cases.

There has also been a definite drop in the number of orthopædic admissions to St. Luke's Hospital, 17 children having been admitted for operative treatment against 27 in 1931. These cases are classified as follows:—

Deformities due to Rickets		3
Deformities due to Infantile Paralysis		5
Deformities due to Spastic Paralysis		4
Deformities due to Congenital Conditions		1
Spinal Caries (abscess formation)	•••	2
Miscellaneous conditions	•••	2
Total		17

The after treatment of these cases is carried out by the Remedial Staff at Lister Lane School. In addition 12 children have been referred to St. Luke's for radiographic reports as to their progress.

### ST. LUKE'S HOSPITAL—OUT-PATIENTS.

Orthopædic cases treated at St. Luke's Municipal	Hospi	tal:—
New patients referred from School Clinics		26
New patients referred from Child Clinic		28
New patients referred from other sources		13
New patients referred from Wards of St. Luke's		19
·		
		86
Old patients		211
		—
Total		297

Though these figures represent a slight increase on those of last year, they give no accurate estimate of the amount of surgical and orthopædic work performed at St. Luke's for school children, as about 300 children per annum appear to be sent there for examination and treatment by the School Medical Officers without any reference to the Orthopædic Surgeon. Some 50 children are sent for X-Ray examinations in the same manner.

### ORTHOPÆDIC IN-PATIENTS.

84 major operations, apart from manipulations and applications of plastic performed without general anæsthetic were performed during the year.

The following Table shows the conditions for which operations were performed:—

Deformities due to Rickets				16
Congenital deformities:—				
Talipes			6	
Hip dislocation			8	
Harelip and cleft palate		•••	4	
Undescended testicle		•••	3	
Supernumerary digits		•••	1	
			-	22
Acquired deformities: Torticollis		•••	•••	6
Paralytic deformities	• • •	•••	•••	12
Hernia: Inguinal	•••	•••	6	
Umbilical	•••	•••	3	_
T 1 1 12.			-	9
Tuberculous conditions	•••	•••	•••	3
Bone conditions, not tuberculou	s	•,••	•••	2
Appendicitis	•••	•••	•••	2
Laparotomy	•••	•••	•••	1
Tonsils and Adenoids	•••	•••	•••	3
Miscellaneous conditions	•••	•••	•••	8
		T-4-1		0.4
		Total	• • •	84

### 9.—OPEN-AIR EDUCATION.

- (a) Playground Classes.—The only classes which are regularly held in playgrounds are those for physical training, but in favourable weather other classes are frequently held in the playgrounds.
- (b) School Journeys.—During the Spring and Summer months children are taken for journeys to the outskirts of the city and given instruction in nature study, botany, etc. Classes are also taken into the Parks and Recreation Grounds for one lesson per week, excepting when the weather is unfavourable.
- (c) School Camps.—No Schools were kept open during the summer holidays under Camp School arrangements as in previous years.
- (d) Open-air Classrooms in Public Elementary Schools.—Excepting Special and Nursery Schools there are only two Schools in Bradford with Open-air Classrooms; both being Infants' Departments.
- (e) Day Open-air Schools.—During the year 1932 the provision of Open-air Schools consisted of one at Thackley for 275 children and Odsal House for 200 children.

The children are selected for Open-air Treatment because of their debilitated condition, by either (a) School Medical Officers or School

Nurses when inspecting Schools; or (b) School Medical Officers at the School Clinics; or (c) Doctors, Head Teachers, and School Attendance Officers, the final decision in all cases resting with the Chief Assistant School Medical Officer.

Special attention in this matter is given to all children who are attending School irregularly on account of ill-health, or are on the School meals list.

Very urgent cases are admitted a few days after medical examination, others are placed on a waiting list and are admitted in turn as early as circumstances permit. There are four School Terms in the year, ending at Easter, Midsummer Holidays, end of October and Christmas. All children undergo periodical medical examination whilst in attendance at the Open-air School and only at the end of the School Terms are suitable children selected for discharge.

The children and teachers assemble each morning in the centre of the City. Those who live some distance away are supplied with checks for travelling in the tram car. The cars which convey the parties to school leave the City at 8-30 a.m. Odsal House School is on the car route, and Thackley School is only a few minutes' walk from the car. This enables the children to arrive there about 9 a.m.

Medical Supervision.—The children are under direct supervision of the School Doctor, who visits the School at frequent intervals. The School Nurse also visits the School one or two half-days per week.

All the Schools are open all the year round, excepting a short holiday period at Easter and Christmas.

(1) Thackley Open-Air School.—Full particulars of this School, which has been in existence since 1908, have been given in previous reports.

The children who attend this School are of all ages from 6 to 14, and are those who live on the North, North-East and North-West sides of the City.

On arrival at School the children are provided with breakfast, consisting of:—Porridge with milk and treacle; bread and margarine (or dripping) and cocoa. Dinners are now supplied from the Green Lane Cooking Depot. Tea:—At the end of the afternoon before departure for home, each child gets a mug of warmed milk.

This School continues to be conducted along the lines indicated in previous reports. A record is kept of all clinical facts relating to each child, and the height, weight, lung capacity, hæmoglobin content, etc., are also noted.

The following Table gives the average increases in height, weight, etc., of the children discharged during the thirteen years, 1920-1932.

Year	Number of children discharged	Increase in weight (kilos.)	Increase in height (cents)	Increase in hæmoglobin	Increase in chest measurement (ins.)	Average stay in months
1920	177	2.58	5.29	11.33%	0.94	10.5
1921	258	2.20	3.27	9.34%	0.61	7.3
1922	297	2.28	4.78	12.88%	0.37	8.4
1923	257	2.43	4.06	8.04%	1.11	8.7
1924	329	2.48	3.43	14.15%	0.59	7.3
1925	410	$2 \cdot 64$	3.46	12.99%	1.02	7.5
1926	415	3.28	3.46	12.43%	1.50	8.4
1927	381	2.81	4.55	10.82%	1.00	9.2
1928	362	2.89	4.36	12.65%	1.20	8.8
1929	414	2.56	3.93	12.77%	0.85	8.7
1930	418	2.52	3.92	14.05%	0.55	9.1
1931	410	2.25	3.28	11.41%	0.32	7.9
1932	423	2.70	3.00	8.80%	0.33	8.8

The numbers of children in attendance at the Thackley Open-air School during the year 1932 were as follows:—

		Boys	Girls
Number on register 1st January, 1932		152	147
Number admitted during 1932		152	155
Number discharged during 1932		159	140
Number on register 31st December, 1932		145	162
Average number present during the year	•••	25	8.3

(2) Odsal House Open-Air School.—Particulars of this school respecting the situation, aspect, area, buildings, etc., were given in the 1927 report.

The children who attend this school are of all ages 6 to 14, and are those residing on the South, South East and South West sides of the City.

The dietary is very similar to the one at Thackley. The older boys and girls are taught gardening and domestic work, such as repairing tools, apparatus for all practical arithmetic and geography, elementary upholstery, repairing of desks and chairs, decorative work, etc.

The following Table gives the average increases in height, weight, etc., of the children discharged during the five years, 1928–1932:—

Year	Number of	Increase in	Increase in	Increase in	Increase in	Average
	children	Weight	Height	Hæmoglobin	Chest Measure-	stay in
	discharged	(kilos.)	(cents.)	(per cent.)	ment (inches)	months
1928 1929 1930 1931 1932	184 398 352 419 443	$ \begin{array}{r} 1.95 \\ 2.15 \\ 1.88 \\ 1.84 \\ 2.10 \end{array} $	$ \begin{array}{r} 3.31 \\ 3.63 \\ 2.97 \\ 2.31 \\ 2.47 \end{array} $	$ \begin{array}{c c} 18.7 \\ 14.2 \\ 14.3 \\ 17.7 \\ 12.5 \end{array} $	$\begin{array}{c} 0.25 \\ 0.29 \\ 0.06 \\ 0.09 \\ 0.44 \end{array}$	7·69 7·97 6·92 5·53 6·37

Particulars as to the number of children in attendance at the Odsal House Open-Air School during the year are as follows:—

	Boys	Girls
Number of children on register 1st January, 1932	108	112
Number admitted during the year	211	193
Number discharged during the year	185	207
Number on register 31st December, 1932	134	98
Average number present during the year	111.9	96.7

(f) Residential Open-Air School.—In November of the year 1930, 20 boys and 20 girls were taken into residence at the Odsal House Open-Air School in buildings which had previously been used as a Residential School for the Blind, and later as a School for the Deaf. The upper rooms are used as dormitories for the children and the staff. The domestic staff consists of Matron and two maids. The children selected for residence are delicate children from homes which are considered to be overcrowded and generally bad. The residential record card of each child includes information as to house, type, condition living rooms, sleeping rooms, number of occupants and number of occupants of child's sleeping room, special comments, e.g. family history, environment, control, etc.

Children remain in residence for about three months, i.e., one school term, excepting odd cases, who on account of their poor physical condition are kept on for a further period. All the children showed signs of great improvement, the chief signs being in hæmoglobin and gain in height and weight. There was also a noteworthy improvement in the general conduct and behaviour of these children.

During the year 1932, 63 boys and 64 girls were in residence at this School, and the undermentioned Table shows the improvement of their physical condition at the time of discharge:—

Year	Number	Increase in	Increase in	Increase in	Increase in	Average
	of	Weight	Height	Hæmoglobin	chest measure-	stay in
	children	(kilos.)	(cents.)	(per cent.)	ment (ins.)	months
1931	155	4·32	0·75	16·25	0·08	2·92
1932	87	1·85	1·81	11·33	0·26	3·81

These numbers are included in the figures showing those in attendance at the Odsal House Open-Air School.

The menu for the residential children is as follows: Breakfasts and Dinners, Monday to Saturday the same as the day open-air children. Breakfasts, Sunday: bacon sandwiches, bread and butter, cocoa or milk. Dinner, Sunday: thin soup, meat and two vegetables, stewed fruit or fruit pie and custard. Teas: Bread and butter with one of the following: cold boiled bacon, meat roll (hot), meat sandwiches (mixed), shepherd's pie, scrambled eggs, fishcakes, fish pie, bananas and custard, fresh fruit salad and fruit and custard, and tea or milk.

10. PHYSICAL TRAINING.—The work in Physical Training has decidedly improved. In the Modern Schools, the scholars are being trained to remove unnecessary clothing when taking exercise. Almost without exception, boys now only wear pumps, football shorts and possibly vests, while the girls remove tunics and stockings. It is anticipated that this habit will react favourably on the conditions in the Junior and Infants' Schools. The re-organisation of several groups of Non-provided Schools will improve their opportunities for organised exercises.

In addition to the usual classes for men and women Teachers which are conducted regularly throughout the year, special "District Demonstrations" have been well attended, especially by Teachers from Infants' and Primary Schools for whom the meetings were more particularly arranged.

Some slight improvement can be noticed in the condition of the playing fields.

The Women Teachers' Games Club has continued to do good work while the Bradford Schools' Athletic Association has successfully extended its activities. The usual demonstration of school work was arranged in connection with the 35th Annual Athletic Festival.

- 11. PROVISION OF MEALS.—(a) The School Medical Officer has continued to co-operate in the work of the Canteen Committee and the provision of school meals, careful attention being given to the dietaries, quality of foodstuffs, the conditions at the Central Cooking Depot and the various dining centres.
- (b) Numerous cases have been reported to the Committee of children found during Medical Routine and Clinic Inspections to be suffering from malnutrition, anæmia, etc., and the supply of school meals to these children has been beneficial.
- (c) In connection with the Special Services' Regulations of the Board of Education referring to arrangements for recording the effect of free meals on the physical and mental condition of the children concerned in some Schools, Head Teachers have, throughout the year, examined and reported immediately a child is first provided with free meals, at the end of the succeeding fortnight and afterwards at intervals of six months, or on the date on which the child ceases to receive free meals. Particulars of weight and height, under specified conditions, are obtained and the Head Teacher furnishes a report on the physical and mental condition of the child at such examination.
- (d) During the twelve months ended 31st March, 1932, by reason of trade depression, there was still a large number of children provided with meals, 80 more children having been supplied with meals free, and 91 more whose meals were partially paid for than the preceding year. During this period the increase in the number of dinners provided was 131,571, breakfasts decreased by 13,950; net increase in meals provided, 117,621.

Number	of	meals	provided:
--------	----	-------	-----------

Number of	meals pro	ovided:-							
				31st I			Year 31st M	Iarc	
1.—Dinners:-									
(a) From (b) By C	aterers	ne 	1,10 1	$03,562 \\ 6,130 \\1$	,119,	1,2 $692$ -	53,684 17,579 1,	251	,263
2.—Breakfast	s:								
	Green La aterers		1	88 <b>,537</b> 50,815	, , - 239,;	352-	$196,961 \\ 28,441 \\$	225	,402
				1	,359,0	042	1,	476	,665
(3) Total net	cost per m	neal:—							
a) Food only		•••	]	l •203d.			1·104d.		
b) Administrat	ion only	•••	]	.∙331d.			1·329d.		
c) Dinners onl	y		6	3·709d.			3·480d.		
d) Breakfasts of	only	•••		2∙390d.			2·220d.	2.4	34d.
Number of c	hildren de	alt with	:						
(a) Total n who red	umber of in	ndividua meals f	al child ree	ren	5,8	510		5	,590
	umber of in neals were				:	949		1.	,040
Payment by	Parents:-								
(a) Amoun					£ s.	d.	£	s.	d.
after p prosecu	rosecution tion .	or thr	eatene · · · ·	d . 1	3 11	6	25	2	0
(b) Amoun cases w borne b	ts received here the fu y them vo	ıll cost h	nas beer	n n	9 13	0	1,504	1	9
cases w	ts received there the r y paid for .	neals ĥa	ve bee:	n	7 5	10 1	$\frac{1}{2}$ 125	8	0
Amount rec tance Con tickets for	nmittee o	n acco	unt c	$\mathbf{f}$					
to children	, as "Rel	ief ''	•		8 9	9	9	19	0

- 12. SCHOOL BATHS.—Interest in swimming has increased, the attendances now being  $2\frac{1}{2}$  times greater than before the re-organisation of the Baths. The number of Certificates and other awards gained have also increased, and the support given to the School Galas and those arranged by the Bradford Schools' Athletic Association. Methods of teaching have been much improved by the introduction of a special lesson scheme for the various swimming strokes.
- 13. CO-OPERATION OF PARENTS.—Parents are invited to attend the Routine Medical Inspection of their children in both Secondary and Elementary Schools and all medical examinations at the various Clinics.

The presence of the parents affords an opportunity to the Medical Officers for giving advice and explanations about the children's health, also in cases where operations for Tonsils and Adenoids or treatment at any of the Special Departments are recommended by the Medical Officer, the consent of the parent is obtained at the time of the inspection, thus causing no delay in these cases being referred and treated.

The percentage of parents present at the Routine Inspections was very much the same as that for the year 1931. From Table VIII at the end of the Report it will be found that  $81\cdot3$  per cent. of parents were present at the Routine Inspection of boys and  $82\cdot3$  per cent. present at the Routine Inspection of girls in the group of entrants, against  $79\cdot0$  and  $82\cdot6$  in 1931.

14. CO-OPERATION OF TEACHERS.—The School Medical Officer is much indebted to the teachers for the help given at the Routine Inspections, for cases referred to the School Clinics, reporting outbreaks of infectious disease amongst the scholars and sending reports on special cases to the School Medical Officer. In return, the School Medical Department does everything possible to arrange the School Medical Inspections at such times and periods as will least interfere with the educational work of the School.

The influence of the Head Teachers with the parents helps the attendance of children at the School Clinics for both medical and dental purposes and the teachers' special knowledge of the children and their environment is very helpful to the Nurses in "following up."

15. CO-OPERATION OF SCHOOL ATTENDANCE OFFICERS.

—The information gained by the School Attendance Officers in visiting the homes of the children is given to the School Medical Department in all cases where difficulty is obtained in securing the attendance of the children at the School Clinics, and is much appreciated; the medical certificates given by private practitioners, collected by the School Attendance Officers, are all kept at the Central Clinic after particulars have been entered on the Medical Record Cards of the children concerned.

The School Attendance Officers also assist in the collection of accounts outstanding for medical treatment and spectacles supplied to children in cases where the parents have failed to pay at the School Clinics.

16. CO-OPERATION OF VOLUNTARY BODIES.—The help given by the Bradford Cinderella Club in providing children referred to them by the Medical Staff with the necessary clothing and boots, also by sending children to the Ambler Home, Morecambe, has been much appreciated.

The Guild of Help visitors have also assisted the School Medical Service by referring cases to the School Clinics, and by giving information obtained during their visits to homes.

The Charity Organisation Society has also assisted the School Medical Service in helping cases referred to them by the School Medical Officers, and also by sending children to Holiday Homes and Convalescent Homes.

During the year many cases of neglected children have been brought to the notice of the National Society for the Prevention of Cruelty to Children's Inspectors, with beneficial results to the children concerned. The Inspectors have also visited cases where the parents had refused to obtain necessary medical attention prescribed by the School Medical Officers.

### 17. BLIND, DEAF, DEFECTIVE and EPILEPTIC CHILDREN.

(a) The methods adopted for ascertaining and dealing with children who are defective within the meaning of Part V of the Education Act, 1921, are as follows:—

The majority of cases are found during the Routine Inspections in the Schools and the Special Inspections at the School Clinics. Others are referred by Head Teachers and School Attendance Officers. Whenever a case is found, or referred, a special appointment is made for the child to be medically examined at the Central School Clinic by the Chief Assistant School Medical Officer, who makes all recommendations to the Local Education Authority for admittance to the various Special Schools in the City.

- (b) All Mentally Defective Children of School age, not in attendance at Special Schools, are placed under the supervision of a Voluntary Care Committee. The children also attend the School Clinic, at periods named by the Certifying Officer, for re-examination, or are visited at their homes or Elementary Schools by the Medical Officer.
- (c) The arrangements made for the after care are carried out by the Local Mental Deficiency Committee. All children who pass through the Special Schools are notified to this Committee under Section 2 (2) (a) or (2) (b) of the Mental Deficiency Act, 1913. This Committee

has a Voluntary Committee which undertakes the visitation of such persons at regular intervals, and the reports of these visitors are presented to the Committee not less than twice each year.

All blind children reaching 16 years of age are notified to the Blind Persons Act Committee, and are then referred to the Royal Institution for the Blind for Training Courses. All children leaving the Special Schools are visited and kept under the supervision of the Special Schools Sub-Committee.

Each Special School has a House Committee, which is composed of members of the Education Committee, along with voluntary workers, who visit the homes of the children and submit their reports to meetings which are held at regular intervals.

General Review of the Special Schools:—

### (1) The Myope School.

The school at Daisy Hill is self-contained, exceedingly well lighted, built of brick and stucco, and is of the open-air type. It is provided with Dining Hall, Teachers' Room, Medical Officer's Refraction Room, Kitchen, Dressing Rooms and Lavatories, in addition to the requisite Class-rooms and Assembly Hall. It was specially built for short-sighted children in a six-acre field which is encircled by a plantation of trees. The accommodation is 178.

Full particulars as to entrance to school, methods of teaching, meals, frequent examination by Medical Officer, discharge, and further examinations have been given in previous reports. Children remain in the school on an average just under three years.

Particulars as to the number of children in attendance at the School during the year are as follows:—

			Boys	Girls
Number on register 1st January, 19	932		61	108
Number admitted during 1932		•••	16	13
Number discharged during 1932	•••		17	18
Number on register 31st December	, 1932		60	103
Children who have left during 1	932 :—		Boys.	Girls.
1. Unfit for further attendance at	school		_	1
2. Left the city			3	_
3. Certified fit for Ordinary School	ol		5	3
4. Certified fit for Secondary Scho			_	1
5. Went to work at 14 years of ag		• • •	7	13
6. Went to work at 16 years of ag	ge	• • •	2	_
Totals	•••	•••	17	18

It will be seen from the above figures that 29 children were admitted during the year. The average number admitted during the eight years previous was 48.6. The number discharged was 35, and the average number discharged for the eight years previous was 36.4.

In addition to the 163 children on the register of the school at the end of December, 1932, it will be noticed from Table III at the end of the report that there were 21 children attending Public Elementary Schools and 5 children at no school or institution.

Of the 21 children attending Public Elementary Schools, in 20 cases the parents objected to the children being transferred to the Myope School, and they are being kept under observation in Elementary or Open Air Schools; 1 was in the transition stage of being transferred to the Myope School.

Of the 5 children at no school or institution, in 2 cases the parents objected to the children attending the Myope School, and on account of the state of the vision the children were excluded from school and were under observation; 2 children were receiving private treatment; the remaining 1 was excluded from school until arrangements were made for admission to the Open Air School.

### (2) The Deaf School.

Particulars respecting the site, surroundings, and buildings were given in the 1930 report. The accommodation for deaf children is 45.

The children stay at the school all day and their meals are sent from the Green Lane Cooking Depot.

The Teaching Staff consists of the Head Teacher and three Assistants, in addition one man attends two half-days per week to teach the boys cobbling.

The acquisition of language is the most important item of the curriculum, and along with it the teaching of speech and lip-reading. Arithmetic is taught from the first, but other school subjects follow as language grows.

The semi-deaf or hard-of-hearing are taught in a class by themselves, as their needs are very different from those of the really deaf.

Fuller particulars respecting this school have been given in previous reports.

Particulars as to the number of children in attendance at the school during the year are as follows:—

		Boys	Girls
Number on register 1st January, 1932	•••	18	17
Number admitted during 1932	•••	8	3
Number discharged during 1932		5	3
Number on register 31st December, 1932		21	17

	Boys	Girls
1. Bradford children:—		
(a) Totally Deaf	. 10	8
(b) Partially Deaf		4
(c) Aphasic	. 3	5
2. Children from other towns:—		
(a) Totally deaf	. 2	
Children who have left during the year:—		
1. Transferred to Hearing Schools (aphasic	1	
2. Went to work at 16 years of age	. 3	1
3. Went to work at 14 years of age	. —	1
4. Sent to Training School for Deaf	. —	1
5. Died	. 1	_
Totals	. 5	3

### (3) Lister Lane School for Physically Defective Children.

This is a special school for children who are so incapacitated, principally on account of deformity or cardiac disease, that they are unable to benefit from education in an ordinary Elementary School.

In January, 1930, accommodation for nursery children (2 to 5) was provided at this school. Other children are admitted on attaining school age, or later, and stay till 16 years old.

Motor ambulances are provided for the conveyance of children unable to travel by the ordinary means of transport. Special chairs and couches are available in the class-rooms.

The School is designed on open-air lines with ample window space and playing grounds. The main block is orientated to get the maximum amount of sun. The children stay all day at school, their dinners being sent from the Green Lane Cooking Centre. Additional milk puddings are prepared in the School Kitchen, where also the girls get cookery lessons. The children rest for an hour on canvas stretchers after their dinners.

The Medical Staff consists of a Nurse and three Masseuses, who are employed whole-time, the Medical Officer, who visits one half-day a week, and a Consulting Orthopædic Surgeon, who visits one half-day a week. Massage, remedial exercises, baths and electricity form part of the routine treatment. Cellulose splints and jackets and simple metal splints are made and fitted at the School, and in a few cases boots and appliances have been provided by the Authority. The Orthopædic Surgeon operates on selected cases at St. Luke's Hospital.

Some of the older girls too, help in the Nursery School with the small children during the dinner hour, but their help can only be given at such times as will not interfere with their education.

The disabilities under which these crippled children labour during school age and in after life are so great that every effort should be made during the former period to make them in the latter period independent and self-supporting members of the community. In mental capacity the children vary from those considerably retarded mentally to the acutely intelligent secondary school children. The physical capacity is almost as wide.

There were 213 children on the School Roll at the end of the year, classified as follows:—

	Boys			Girls				
Defect	Aged under 5	Aged 5 to 10	Aged 11 to 15	Aged under 5	Aged 5 to 10	Aged 11 to 15	Total	
Congenital Deformities, e.g., Club-foot, Dis- location of Hipjoint, etc Birth Palsy, Torticollis,	4	8	1	1	5	1	20	
Infantile Hemiplegia, etc Deformities due to In-	_	6	4	_	4	2	16	
fantile Paralysis Deformities due to	1	13	11	_	8	9	42	
Rickets Deformities due to Tuberculous Disease of Bones and Joints:	1	1	_	2	2		6	
1. Spine		$\frac{3}{2}$	7		4	5	19	
2. Hip	—	2	4	_	5	2	13	
3. Other regions Heart Disease:—		3	_		3	1	7	
Congenital		10	4		10	4	28	
Acquired		9	8		7	13	37	
Other Conditions		7	7		7	4	25 ———	
Totals	6	62	46	3	55	41	213	

			Boys	Girls
Number on Register 1st January, 193	32	•••	131	97
Number admitted during 1932	•••	•••	17	16
Number discharged during 1932	•••	•••	34	14
Number on register 31st December, 1	932	•••	114	99

Children discharged during the year:-

Removals, etc. ...

8	J			
1. Fit to attend an Element	tary School		19	4
			2	-
J J		•••		
3. For employment at 16 years		•••	4	5
4. For employment under 1	6 years of ag	e	7	1
5. Left the City	•••		2	1
6. Deceased		• • •	_	2
7. Transferred to Grassingto	on Sanatoriui	n	_	1
				_
Totals	•••	•••	34	14
During the past 7 years 144 child	dren betweer	the ago	es of 1	4 and
16 have left this school, and the following				
the results of visitation by the member				
				tee.—
Children (reported on) who le	eft between t	the ages	of 14	
and 16 during the past 7				144
In regular employment			•••	78
Not in regular employment (				23
		• • •	•••	12
Doing housework at home	•••	•••	•••	
At home doing little or nothi	ing			7
Incapable of doing anything		•••	•••	5
In Hospital				3
Removed—no trace				8
In Institution for M.D.'s				1
D 1		•••	•••	7
Dead	•••	•••	•••	
				144
Of those who left at 16 years	of ago:			
				21
Boys in work	•••	•••	•••	
Girls in work	•••	•••	• • •	18
Boys not in work (but capab	le)	• • •	•••	9
Girls not in work (but capab)	le)			5
Housework at home	·			9
To: TT 1/4 - 1				2
At home doing little or nothi			•••	3
	9	•••	•••	4
Incapable of working	•••	•••	•••	
				71
Of those who left at 14 years of a	ge:—			• •
Boys in work	9			19
C:-i1- :1-	•••	•••	•••	20
Girls in work	1.1	•••	•••	
Boys not in work (but capab		•••	•••	5
Girls not in work (but capab)	le)	•••	•••	4
Housework at home		•••	•••	3
In Hospital				1
At home doing little or nothi				4
Incapable of working	0			1
incapable of working	•••	•••	•••	
				57

16

144

Total

The following table gives particulars of treatment given by the Masseuses at Lister Lane School:—

		Nature of Treatment								
Defect		Massage.		Elect			edial cises.		Splints and Jackets.	
		Child- ren	No. of Treat- ments	Child- ren	No. of Treat- ments	Child- ren	No. of Treat- ments	Child- ren	No. of Treat- ments	
Tubercular Bones and Join	ts	10	357			21	1796	14	644	
O . M. 1'1' T (1 TT'		1	27			_	_	2	85	
Rickets		16	1023	—		4	380	—	_	
Spinal Curvature		1	82	—	_	7	740			
Heart Disease		_		_	_	3	232	1	29	
		50	2789	5	242	37	2794	<u> </u>	_	
		8	365	_	—	4	277	_		
Miscellaneous	• •	4	97			1	101	3	63	
Totals		90	4740	5	242	77	6320	20	821	

### (4) THE MARGARET McMillan Special Day School for Mentally Defective Children.

The history of Mental Defective Schools, particulars respecting the present buildings, and photographs of the new Boys' School which was opened 23rd September, 1929, appeared in the 1929 report.

As far as possible, with mentally defective children, the chief aim is to teach these children those things which will be most useful and helpful after leaving school, when to a certain extent they have to rely on themselves, so that although limited in many ways they may at least try to be decent and happy citizens by taking a pride in themselves and their homes.

The curriculum for both boys and girls at this school was given in the Report for 1931.

The numbers of children attending this School are shown in the following table :—

	On roll 1st January, 1932	Admitted	Discharged	On roll 31st December, 1932
Boys Girls	62 57	9 10	11 14	60 53
Totals	119	19	25	113

Boys who have	e left during the year	:				
	to work at 16 years				• • •	4
2. Placed	d under guardianship	of parents			• • •	5
	led too ill to attend s	chool		•••	• • •	1
4. Certifi	led ineducable .			• • •	•••	1
	·					-
		Total	•••	• • •	•••	11
Girls who have	left during the year:	:—				
<ol> <li>Certifi</li> </ol>	ed fit for an ordinary	elementary	school			1
	to work at 16 years of					2
	l under guardianship					6
	ferred to Institution i			ves		3
	ferred to Grassington	Sanatorium				1
6. Left t	he City	••	• • •		• • •	1
		Total				14

### (5) Grassington Sanatorium School.

Children found at Medical Inspections to be suffering from or suspected to be suffering from Pulmonary Tuberculosis are referred to the Tuberculosis Officer, who holds a Children's Clinic at 2 Howard Street each Thursday at 9.30 a.m.

Children are selected by the Tuberculosis Officer for attendance at the Grassington Sanatorium School, and are conveyed there by ambulance.

Excepting an occasional case that is withdrawn by the parent or other reasons, such as infectious diseases, etc., the children remain at this school until discharged by the Medical Officer of the Sanatorium.

On 1st January, 1932, 16 boys and 13 girls were in residence at this school. 44 boys and 31 girls were admitted, 43 boys and 24 girls discharged, leaving in residence on 31st December, 1932, 17 boys and 20 girls. It will, therefore, be noticed that the numbers in residence at the end of the year were more than those at the commencement by 1 boy and 7 girls.

The 37 children on register 31st December, 1932, were classified by the Medical Superintendent of the Institution, Dr. Cummings, as follows:—

\*\*Boys\*\* Girls\*\*

1.	Active Pulmonary Tuberculosis (including	
	pleura and intrathoracic glands) 10	13
2.	Quiescent or arrested pulmonary tuberculosis	
	(including pleura and intrathoracic glands) -	-
3.	Tuberculosis of the peripheral glands 6	6
4.	Abdominal tuberculosis	_
5.	Tuberculosis of bones and joints (not including	
	deformities due to old tuberculosis) 1	1
6.	Tuberculosis of other organs (skin, etc.)	-
	17	20

Children under school age in the Sanatorium on 31st December, 1932:—
Girls: 2 under No. 3.
1 under No. 5.

The 67 children discharged were dealt with as follows:—

Admitted to				Boys	Girls	Total
Thackley Open-air School				14	9	23
Odsal House Open-air School				7	6	13
Ordinary School				11	3	14
Over 14 years of age					2	2
Treatment at the Anti-tubercu	losis	Centre		5	2	7
St. Luke's Hospital, Bradford				1		1
Lister Lane School				1		1
Left the City				1	1	2
Transferred to Skipton Isolation		spital		1		1
To own doctor				1	_	1
For re-admission				1	_	1
Tota	ls			43	23	66

Mr. F. W. Goyder, M.B., F.R.C.S., Consulting Orthopædic Surgeon, attends this School monthly to supervise the treatment of Surgical Tuberculosis and arranges for any cases requiring Surgical Treatment to be transferred to the Orthopædic Clinic at St. Luke's Hospital.

#### ANTI-TUBERCULOSIS CENTRE.

The following particulars respecting the treatment of school children at the Anti-tuberculosis Centre have been supplied by Dr. Vallow, the Tuberculosis Officer:—

Children treated at the Anti-tuberculosis Centre:—	Boys	Girls
Number under treatment on the 1st January, 1932	6	16
Number of new cases during the year	62	70
Number discharged during the year (including cases		
sent to Sanatoria)	53	81
Number remaining under treatment on 31st December,		
1932 (including cases who were not sent to		
Grassington until January 1st, 1933)	5	5

18. NURSERY SCHOOLS.—At the end of the year there were seven Nursery Schools in Bradford, St. Ann's School was opened in the Spring of 1920, Princeville School in November, 1920, Lilycroft School in May, 1921 Wapping Road in October, 1925, Bowling Back Lane School, 5th November, 1929, Bierley School 10th November, 1930 and St. Joseph's R. C. 3rd November, 1931.

Full particulars respecting sites, buildings, equipment, gardens, dietary provided and general principles which guide the life of the Nursery School, etc., etc., have been given in previous reports.

The Medical Staff acts in close association with the Education Staff in connection with the general arrangements, equipment and dietary provided. The Assistant School Medical Officer visits the schools one half-day per month and the Nurse one half-day per week.

At the monthly visit to the School the Assistant School Medical Officer makes a general practice of thoroughly inspecting all children admitted since the previous visit, and excepting a few special cases, the children examined can be classed as Entrants to Nursery Schools. The analysis of these inspections will be found in Table II.

The following table gives the number of defects found at the periodical examinations (other than the entrance inspection) of Nursery School Children:—

		Number of	Defects.	
Defect or Disease.	To be kept under observation but not referred for treatment.	Referred for Treatment.	Treated by this Authority.	Treated Other- wise.
Malnutrition	1	20	19	·
Uncleanliness: Head	_	20	20	
Body	_	2	2	_
Skin: Ringworm—Head		2	2	_
Scabies	_	8	8	-
Impetigo		27	27	
Other Diseases (Non-T.B.)	_	17	17	_
Eye: Blepharitis	_	10	10	_
Conjunctivitis	_	4	4	_
Defective Vision		]	_	
Squint	4	5 4	$\frac{4}{2}$	1
Other Conditions Ear: Otitis Media	1	6	5	1
Nose and Throat:	1	U	J	1
Enlarged Tonsils	16	52	50	1
Adenoids	1	3	3	
Enlarged Tonsils and			_	
Adenoids	2	11	10	1
Other Conditions	3	20	20	
Enlarged Cervical Glands (Non-T.B.)	4	7	7	-
Defective Speech	2			
Dental Disease	_	4	1	_
Heart and Circulation:				
Heart Disease—Organic	2	<u> </u>		<u> </u>
Functional	3	1.5	1.5	_
Anæmia	_	15	15	
Lungs: Bronchitis	1	25	25	_
Other Non-T.B Diseases Nervous System: Chorea	1	$\frac{23}{1}$	$\frac{23}{1}$	_
Other Conditions	1	1	1	
Deformities . Pieleste	$\frac{1}{2}$	9	7	
Other Forms	5	1	i	
Mental Condition	i			
Infectious Diseases		3	3	
Other Defects and Diseases	3	47	39	7
Minor Ailments	_	26	25	1
Totals	52	373	350	12

### 19. SECONDARY SCHOOLS.—(1) Medical Inspection:—

- (a) Secondary Schools provided by this Authority ... 9
  Secondary Schools not provided but aided ... ... 4
  Junior Technical School provided ... ... 1
- (b) The pupils of all provided schools also all the City Council Scholarship pupils in the non-provided schools are submitted to a full inspection before admission. In the four non-provided schools paying pupils admitted since the previous Medical Inspection are submitted to an inspection. At the annual medical inspection all children 12 years of age together with all children over the age of 12 years are submitted to a full medical inspection.
  - (c) All pupils attending the Secondary Schools are inspected.
- (d) The arrangements for following-up the defects discovered at the inspections are the same as those for Elementary Schools. (See paragraph 7, page 163).

### (2) Medical Treatment:—

- (a) Forms of treatment provided under arrangements made by this Authority are given in paragraph 8, Medical Treatment. The summaries of all defects found with the recommendations of the Medical Officers along with the number treated are given in the tables under the heading of "Secondary Schools," also the number of children examined and treated by the School Dentists, which are given in Table IV, Group IV.
- (b) Treatment is available for all children who reside within the city boundary. Fee-paying pupils who attend the Non-provided Grammar Schools in the city, but who live outside the city are allowed treatment for minor ailments only.
- (c) In most cases of Secondary School children receiving treatment for which any payment is charged by the Authority, the amount due is paid at the time of treatment; at the end of each month cases that have not paid are notified to the School Attendance Department, who undertakes the collection of amounts due.

During the year the Woman Medical Officer has been employed about five half-days per week on work in connection with the Secondary Girls' Schools. In the Boys' Secondary Schools a similar amount of time has been spent, the Medical Officer in each of the four districts taking the Secondary Boys' School in his particular district. Medical Inspections have been carried out in all the Secondary Schools under this Authority, also in the Bradford Boys' Grammar School, the Girls' Grammar School, St. Bede's Grammar School and St. Joseph's College for Girls.

It will be seen from Table I that 4,446 children were examined during the year, excluding entrants, compared with 4,233 in 1931, 3,863 in 1930, 3,808 in 1929, 3,863 and in 1928.

- 20. CONTINUATION SCHOOLS.—No provision is made for the Medical Inspection of pupils in Continuation Schools by this Authority.
- 21. EMPLOYMENT OF CHILDREN AND YOUNG PERSONS Education Act, 1921, Part VIII, Section 90 to 108.

There has been no change in the administration of the Bye-laws for the control of young persons trading in the streets, and for the regulation of children in general employment.

The provisions of the Bye-laws controlling these employments have been so widely and thoroughly circulated throughout the City that flagrant offences rarely occur.

Approximately 500 children were known to be employed out of school hours during the year, the chief occupations being those of errand boys or girls in connection with shops of Newsagents, Milk Dealers, Grocers, Butchers, Confectioners, and Greengrocers. The number of offences discovered during this period was 170, these figures relating to 106 children. Warning notices were served in respect of 168 of these complaints, and in two cases proceedings before the magistrates were instituted, when fines amounting to £5 and 4/- costs were imposed.

Thirty-six children, who were under 12 years of age, were found to be employed contrary to the provisions of the Education Act, and in thirty-five of these cases warnings were sent to the employers concerned. In the remaining instance, the employer (the father of the boy) was prosecuted and fined  $\pounds 2$ .

In February, 1932, 42 children who had been employed in Pantomimes were re-examined immediately the Pantomimes were finished, and all were found to be in a physically good condition.

In October, 1932, 49 children were examined *re* licences to take part in Pantomimes; 47 of these were found to be physically fit, and two were considered to be unfit. Of the 47 certified to be fit, 41 applications were made and granted.

Nine children have visited Bradford under licences issued by other Education Authorities and have taken part in public entertainments at the various places of amusement in the city.

The Statutory Rules and Orders are strictly enforced. Apartments in respect of children on tour are very carefully inspected; the children are chaperoned to and from the theatre, and attend school regularly. The dressing rooms at the theatres and music halls are regularly inspected, and the children checked as to the time they leave the theatre, etc.

STREET TRADING.

No girl under the age of 16 years is permitted to engage or to take part in street trading, and youths desiring to follow this occupation must be 15 years of age and be certified as fit for this occupation by the School Medical Officer.

Four licences were issued during the year and during this period 24 boys and 6 girls were found illegally trading in the streets without licences. The employers and parents of 29 of these children were warned that a repetition of the offence would involve them in legal proceedings, and in the remaining instance the parent was prosecuted and fined 20/-.

Having regard to the size of the City, there is no serious ground for complaint, either with regard to the employers of children or respecting the young persons trading in the streets.

In the work of supervision of Street Traders the Police have readily and effectively co-operated with the officials of the Education Department.

Thirteen children attending the Secondary Schools of the City have been found employed out of school hours, and the parents were warned as to the breach of the agreement.

(ii) The co-ordination of the work of the School Medical Service with that of the Juvenile Employment Bureau is carried out as far as possible: previous to leaving school a Juvenile Employment Card is completed for each child, on which is entered particulars respecting the physical condition, height, hearing, eyesight, and general health. These particulars are taken into consideration in deciding what occupation a child is suitable for. In exceptional cases, children are medically examined by the Chief Assistant School Medical Officer at the request of the Officer-in-Charge of the Bureau.

The following information has been taken from the Annual Report of the Juvenile Employment Bureau for the year ended 31st July, 1932:—

It is the Twentieth Report issued by the Committee, the Bureau having been instituted in the year 1913 under the provisions of the Choice of Employment (Education) Act, 1910. Since the 12th May, 1924, however, the work has been conducted under a more comprehensive scheme, approved by the Board of Education, in which is embodied the provisions of Section 107 of the Education Act, 1921, and Section 6 of the Unemployment Insurance Act, 1923.

Part 1 of the Scheme sets out arrangements for giving to boys and girls under the age of 18 years assistance with respect to the choice of employment and in order that provision may be made for its effective operation, it is required that:—

(a) The Authority will arrange that the Head Teachers of the Day Schools shall furnish the Juvenile Employment Committee with information as regards the employment obtained by any pupil before leaving school, and that if any pupil has not, within one month of leaving school, obtained suitable employment, and the assistance of the Juvenile Employment Committee is desired on his behalf, the Head Teacher shall forward to the Committee an application on the form prescribed for the purpose by the Authority.

- (b) If required by the Authority, there shall also be furnished not less than one month from the date of leaving, reports as to the conduct and capabilities of pupils about to leave school, together with statements showing whether the several pupils desire to apply for employment to the Committee or not.
- (c) The Juvenile Employment Committee shall also be furnished with a report on the physical capacity of any pupil who desires to obtain employment through the Committee.
- (d) The Juvenile Employment Committee will arrange that applications for employment are duly registered and that on their receipt the pupils and, if possible, the parents concerned shall be interviewed before the end of the School Term, on behalf of the Committee and given information and advice as to the prospects of employment.

Part II of the Scheme specifies in detail the duties undertaken by the Authority in connection with the administration of Unemployment Insurance Benefit to persons under the age of 18 years.

In pursuance of these requirements "Confidential Report Cards" were received from Head Teachers containing the required information regarding each child eligible to leave school during the year. On their receipt, arrangements were made for all such as had not already obtained suitable occupations to come to the Bureau to be registered, on certain evenings set aside for that purpose, during the last week of the term. The parents were also invited and it is estimated that more than 60 per cent. responded and were grateful for the advice and guidance regarding their children's prospects of employment which they were able to obtain in consultation with officers of the Bureau.

In addition to these registration interviews, parents were invited to attend School Conferences which were held in all senior schools towards the end of each term. At these Conferences each leaver was interviewed by an Officer of the Bureau in the presence of its parent, if able to attend, and the Head Teacher.

The sum of the wishes of the parent and child, and the recommendation of the Head Teacher, together with the School Records of educational attainments, enabled the Officer, with his knowledge of the openings available, to advise as to the most likely job, or, as the case may be, the most suitable course of study to pursue in preparation for any particular profession. The advisability of a juvenile continuing his or her education was duly stressed in every case.

The Officer-in-Charge has been accompanied on several occasions by a member of the Juvenile Employment Sub-Committee who addressed the leavers at each type of school—Elementary, Modern, Central, and High. The number of reports on children leaving school at the end of the several school terms during the year have been:—

					Boys	Girls	Total
October, 1931	 				188	194	382
December 1931	 				237	258	495
Easter, 1932	 				244	261	505
Midsummer, 1932	 • •	• •	• •	• •	644	574	1218
	Totals				1313	1287	2600

As showing the effect of the reduced birth rate during the Great War years, it is interesting to quote the figures from the Committee's 1927 Report, viz.:—

				Boys.	Girls.	Total.
Christmas, 1926	 			673	699	1,372
Easter, 1927	 			469	560	1,029
Midsummer, 1927	 			694	660	1,354
		Totals	•••	1,836	1,919	3,755

Thus it will be seen that 1,155 less children left school this year than in 1927. At this time the school year was divided into three terms only.

As evidence that the Bureau is being much more generally used by juveniles, it may be stated that whereas in 1927 the number of juveniles registering for employment was 3,579, in the year under review it was 5,283, despite the fact that the number of children leaving school was so much less during the year just completed.

Employers also are using the Bureau service much more systematically than formerly. In 1927, vacancies notified numbered 1,368, of which 1,182 were filled, whilst during the year ended 31st July, 1932, the number notified was 2,662, the number placed being 2,305. This is the highest number of placings on record and is an increase of 35 per cent. on last year's total.

As last year, at the end of the summer term, a course of vocational lectures were given in the Technical College Hall. The speakers were local business or professional men and women, experts in their own trade or professions.

All the school leavers were invited to attend as also were the members of the Juvenile Employment Sub-Committee and After-Care Workers, of whom a fair proportion attended. Questions were invited and after the meeting the speakers remained behind and gave special advice to those who desired it.

Following is a list of the subjects lectured upon:-

The Textile Industries. The Building Trades.

The Engineering Trades: Electrical, Mechanical, and Motor.

The Needle Trades.

Nursing: Nursery and Hospital.

The Bradford Trade.

Careers in Business and the Professions.

The Distributive Trades.

Much interesting and useful work has been done through the Rota Committees which consist of members of the Juvenile Employment Sub-Committee and certain other ladies and gentlemen with experience in dealing with young people, who have been co-opted for this special work.

The work of these Committees is to interview boys and girls who have been placed recently, in order that it may be ascertained whether the placings have been satisfactory and also to advise as to the means of further qualifying themselves for promotion when the opportunity arises. The facilities provided by the Education Authority for continued education are fully explained.

In addition to this, juveniles who have been unemployed for long periods are called for interview and given advice and encouragement.

Good work continues to be done by the 18 District Voluntary After-Care Committees and it is pleasing to report that during the year, the home of every school leaver has been visited at least once. A few vacancies are still open and it is hoped that these will soon be filled.

During the year, the Voluntary After-Care Visitors formed themselves into an Association called the Association of Juvenile Employment Voluntary After-Care Visitors. An Executive Committee was formed, composed of one member from each District Committee.

In March the Juvenile Employment Sub-Committee agreed to an additional member being appointed to represent the Voluntary After-Care Visitors. This was confirmed by the City Council at its April meeting, and the Executive nominated one of its members to serve.

The scheme for providing Industrial Supervision has worked throughout the year with good effect. The Officer responsible for the work made 1,202 visits during the period and his efforts have resulted in a closer understanding between individual employers and the Bureau and also in a fuller appreciation of what is required by the former in their several businesses.

As an outcome of inquiries made during these visits, a comprehensive register containing particulars of the requirements of all the principal business houses in the city has been compiled. This register is of great value as all transactions with firms are duly noted for future reference.

The Boys' Junior Instruction Centre at Ryan Street has been open throughout the year, but the Centre for girls was closed down in November, 1931, owing to there not being sufficient number of claimants to merit its continuance.

The Bureau has co-operated to the fullest extent with the Officers of the Ministry of Labour in endeavouring to get the very best out of the Ministry's Scheme for the transference of girls from the distressed mining areas to Bradford and other industrial centres, and placing them in domestic service. 67 girls have been placed during the year.

The girls are visited at a short interval after their arrival and every effort is made to make them feel at home in their new surroundings.

They are introduced to other girls, if possible from their own neighbourhood, and are encouraged to keep in touch with the Bureau and its Officers.

Many of these girls after being introduced to the Officers of the Y.W.C.A. have become members of that Institution, where they are able to form friendships and where the Superintendent does all in her power to make them comfortable.

In spite of all this, it is impossible in many cases to induce the girls to stay for any length of time, and some very difficult cases have had to be dealt with during the year, requiring the utmost tact and care in handling. It is felt that many of these difficulties would be overcome if the girls on leaving home were advised in such a way as to help them override the natural feeling of homesickness from which most of them suffer. Our experience is that, perhaps unconsciously, and with the best intentions possible, parents often leave the impression on the girl's mind that it is easy for her to return home if she does not like her new place. It would be much better if the girl was strongly advised to persevere for a period of say two or three months, by which time her early troubles would very likely have been dispelled.

It is felt that the reason for dissatisfaction is not always confined to the girls themselves. It would appear that some employers fail to realise that allowances should be made for the girls' youth and inexperience.

It is becoming increasingly difficult to find suitable posts for youths of 16 and 17 years leaving the Secondary Schools; although 173 of these have been placed during the year, many have had to accept jobs contrary to their wishes and a number are still without work. 197 Secondary School girls have been placed during the period.

Many former avenues of employment have been for some time virtually closed. Much clerical work, which formerly found employment for many boys is now performed by girls working comptometers, adding machines, etc., which are being introduced into many large business places.

The stagnation in the local piece goods trade, especially that in connection with merchant shipping houses, has been the cause of a very limited demand for boys of this type.

In direct contrast to this, it should be stated that there has been little difficulty in finding jobs for boys of 14 to 15 years of age; in fact, at the end of each term there has been a definite shortage. The demand for girls and younger boys was most strikingly experienced following the Government's decision in regard to the Gold Standard in September, 1931.

There is ample evidence on the files of the Bureau in the form of letters of appreciation from employers, parents, juveniles, and Voluntary After-Care Visitors, that the Bureau is functioning to good purpose, and so, as in business it is accepted that a satisfied customer is the best advertisement, it is felt that the Committee can safely look forward to the work being carried on with even greater success in the future. The Bureau is a sure and strong link between School and Industry and can be relied upon with the co-operation of all concerned to produce the best results which prevailing conditions will allow.

Of the 1,313 boys and 1,287 girls who had taken up first occupations on leaving school, 53 boys and 59 girls had attended Special Schools in the city.

During the year the number of juveniles placed in occupations by the Bureau was as follows:—

				Nur	nber betwe	een the ag	es of	Total
				1415	15—16	16—17	17—18	·
Boys Girls	••		• •	$\begin{array}{c} 463 \\ 410 \end{array}$	154 148	$\frac{242}{350}$	$\frac{235}{303}$	1094 1211
GHIS	• •	••		110	110		000	1211

The figures for the year ended July, 1931, were 780 boys and 1044 girls.

(iii) The findings of the School Medical Service as regards the physical conditions of employed children and young persons.

Children employed in Public Entertainments.—Full particulars of the routine system of the medical examination of children selected by the Managements for employment at the Pantomimes in the Theatres have been given in previous reports.

During the year 1932, 41 licences were granted to Bradford children to take part in Pantomimes at Bradford, Leeds, Birmingham, and London. These children were examined in October, and strict particulars taken of height, weight, etc. 40 of these children were re-inspected in February, 1933, one of them having reached the age limit, and the average gain was: height  $\frac{3}{4}$  inch, weight 1 lb. 11 oz., with a very marked improvement in hæmoglobin.

22. SPECIAL INQUIRIES.—During the year 1932 no special inquiries have been conducted except the continuance of the periodical medical inspection of children who have left the Myope School.

A detailed report of these examinations appeared in last year's report, and there are no further striking cases arising out of the 1932 re-examinations.

23. MISCELLANEOUS.—During the Summer of 1932, 1106 Junior Scholarship candidates were medically examined a decrease of 383 from the previous year. Of that number 217 boys and 192 girls, or 36·1 per cent. were found to be suffering from some abnormality, full particulars of which will be found in the undermentioned table, which again proves the necessity of children being medically examined before they are allowed to enter Secondary Schools.

Of the 409 found abnormal, 220, or 19·1 per cent. of the number examined were referred for treatment.

					Number o	f Defects.
Defect or	Disease.				To be kept under obser- vation, but not referred for treatment.	Referred for treatment.
Malnutrition	•••	•••	•••	• • •	1	17
Skin: Impetigo	•••	• • •	• • •	•••	1	2
Other Diseases (Nor	n-T.B.)	•••	• • •	• • •	1	8
Eye: Blepharitis		• • •	•••			1
Conjunctivitis	•••	•••		• • •	_	1
Defective Vision					85	90
Squint	•••		•••		10	
Other Conditions					1	_
Ear: Defective Hearing	•••					1
Otitis Media	•••					$ar{2}$
Other Disease	•••	•••				ī
Nose and Throat: Enlarged	Toneile	•••	•••		53	46
Enlarged	1 Tonsils		A denoid	1		6
	onditions		Adenoic			13
	martions	•••	•••	•••	4	10
Enlarged Cervical Glands	***	•••	•••	•••		10
Defective Speech	•••	•••	•••	• • •	1	
Dental Disease	•••	•••	•••	•••		10
Heart Disease: Organic	•••	•••	•••	•••	4	4
Functional	•••	•••	•••	•••	9	1
Anæmia	•••	•••		• • •	5	13
Lungs: Bronchitis	•••	•••	•••	• • •	1	3
Other Non-T.B. D	iseases		•••		2	1
Tuberculosis: Other Forms	s				1	
Nervous System: Chorea					1	1
Other Co	onditions				5	6
Deformities: Rickets					7	_
Spinal Curva				•••	3	14
Other Forms				•••	9	6
Other Defects and Disease	s				5	19
Minor Ailments	••••	•••	•••	•••		1
James I I I I I I I I I I I I I I I I I I I	***	•••	•••	•••		1
		Tot	als		209	277

In practically all cases where the Medical Officer had recommended treatment, the treatment was carried out at the School Clinic or Special Departments under this Authority.

In the cases of 7 boys and 1 girl, it was recommended that the scholarships be postponed as follows:—

- 3 boys postponed for 12 months on account of myopia, chorea, anæmia, malnutrition, etc.
- 2 boys and 1 girl postponed for six months, 2 on account of myopia and 1 on account of chorea.
- 2 boys postponed for three months on account of malnutrition, anæmia, and overstrain.
- 1 boy was admitted to Open Air School on account of overstrain, and 1 boy to the Myope School for myopia.

In 29 cases children were certified fit to take up a secondary education on conditions that they were exempted from doing any homework for given periods, after which they were re-examined, the chief cause being on account of myopia. In 8 cases children were to be exempted from any physical exercises or games on account of heart conditions.

24. STATISTICAL TABLES.—The numbers of scholars on the registers of the Schools in the City on June 30th, 1932, were as follows:—

Type of So	Number of children on Register	Average Attendance		
Elementary Schools		 • • • •	36667	31287
Secondary Schools		 	3904	3660
Central Schools		 	505	464
Special Schools	•••	 	1160	972
Nursery Schools	•••	 	660	402
Totals		 	42896	36785

In addition to the above, there were 90 pupils on the register at the Junior Technical School (College of Arts and Crafts) with an average attendance of 86, and 1,899 on the registers at the four "Non-provided, but Aided" Grammar Schools in the city with an average attendance of 1,801.

## TABLE I RETURN OF MEDICAL INSPECTION

### A.—ROUTINE MEDICAL INSPECTIONS.

Code Group	Boys	Girls	Total
Entrants	1975	1919	3894
Intermediates	1971	1983	3954
Leavers	1365	1308	2673
Totals	5311	5210	10521
Other Routine Inspections: Other Ages	449	500	949
Special Schools	121	162	283
Nursery Schools	168	162	330

### SECONDARY SCHOOLS.

		Student Teachers	Routine Inspections.								Grand	
Sex		and Bursars.	10	11	12	13	14	15	16	over 16	Total	Total
Boys Girls	•••	6 18	80 25	185 97						108 94		$2393 \\ 2053$
Total		24	105	282	1207	874	727	738	287	202	$\overline{4422}$	4446
Entrants to Secondary Schools								1106				

Elitia	its to secondary schools	•••	• • •	•••	1100
		Total		•••	5552

### B.—Other Inspections.

1. Elementary Schools:	Special Inspections	•••		12817
	Re-inspections		•••	9963
	Total	•••	•••	22780
2. Nursery Schools:	Special Inspections	•••	•••	913
	Re-inspections	•••	•••	1161
	Total	•••	•••	2074
3. Special Schools:	Special Inspections			1792
•	Re-inspections	•••	•••	2439
	Total	•••		4231
4. Secondary Schools:	Special Inspections	•••	•••	1529
•	Re-inspections	• • •	• • •	3728

5257

Total

TABLE II
RETURN OF DEFECTS FOUND BY MEDICAL INSPECTION
IN THE YEAR ENDED, 31st DECEMBER, 1932.

	E	Elementa	y School	ls	Secondary Schools				
	Rou Inspe		Spe Inspe		Rou	tine	Spec		
	No. Def	of	No. Defe	of ects	No. Def	of ects	No. of Defects		
Defect or Disease	Requiring treatment	Requiring to be kept under observation but not requiring treatment	Requiring treatment	Requiring to be kept under observation but not requiring treatment	Requiring treatment	Requiring to be kept under observation but not requiring treatment	Requiring treatment	Requiring to be kept under observation but not requiring treatment	
Malnutrition	632	35	458	9	48	1	8	1	
Uncleanliness (see Table IV, Group V) Skin:	_	_	-			-	-	-	
Ringworm, Scalp	10		47	1	_		2	_	
Ringworm, Body	3	-	113	5		-	6		
Scabies	24	$\frac{}{2}$	188 954	2	$\frac{4}{7}$	-	8	_	
Impetigo Other Diseases (Non-	75	4	954		'		19		
T.B.)	157	21	402	_	90	22	7	_	
Eye:									
Blepharitis	81	6	223	<u> </u>	15	_	6	-	
Conjunctivitis	13	1	136		5	-	5	_	
Keratitis Corneal Ulcers	2	1	6						
Corneal Opacities	1	2	1	1	_	1		_	
Defective Vision (Ex.			_						
Squint)	619	499	1638	322	648	510	120	87	
Squint	110	122	234	34	2	14	5		
Other Conditions Ear:	38	8	301	5	11	2	8		
Defective Hearing	43	21	65	2	11	3	1	1	
Otitis Media	85	10	444		9	$\frac{1}{2}$	11	_	
Other Ear Diseases	11	1	193	2	3	1	24	_	
Nose and Throat:	0.17		0.0	0.7	105	7.45	7.0		
Enlarged Tonsils	$\begin{array}{c} 941 \\ 29 \end{array}$	760	88	$\frac{21}{3}$	$\begin{array}{c} 167 \\ 2 \end{array}$	145	16 1	1	
Adenoids Enlarged Tonsils and	29	6	49	3	4		1		
Adenoids	187	31	245	12	5	l _	10	1	
Other Conditions	156	48	811	1	47	9	37	-	
Enlarged Cervical Glands									
(Non-T.B.)	527	143	131	$\frac{2}{5}$	59	$\frac{32}{c}$	5	-	
Defective Speech	5	19	10	5	_	6	1	_	

TABLE II—continued.

TABLE 11—communa.											
	I	Elementa	ry School	ls		condary					
		itine ection	Spe Inspe	cial ction	Rou Inspe	tine ection	Spe Inspe	cial ection			
	No	o. of	No.	of	No	of	No	. of			
	Def	fects	Def	ects	Def	ects	Defects				
		der		der	F	der		der			
Defect or	Requiring treatment	not int	ent	t un not ent	ent	not ent	ent	quiring to be kept un observation but not requiring treatment			
Disease	atn	sep sut tme	atm	sepout atm	atm	sep atm	atm	titte			
	tre	be J	tre	be l	tre	be l	tre	be l			
	ing	to ratio	gui	to ratio	ing	to ati	gui.	to to ng ng			
	quir	quiring to be kept un observation but not requiring treatment	Requiring treatment	luiring to be kept ur observation but not requiring treatment	Requiring treatment	luiring to be kept un observation but not requiring treatment	Requiring treatment	ring			
	Re	Requiring to be kept under observation but not requiring treatment	Re	Requiring to be kept under observation but not requiring treatment	Re	Requiring to be kept under observation but not requiring treatment	Re	Requiring to be kept under observation but not requiring treatment			
		NA NA	ļ	Re	1	N N	1	Re			
Teeth—Dental Disease			1		1						
(see Table IV, Group											
ÌV)	319	95	185	_	62	2	9				
Heart and Circulation:											
Heart Disease Organic	81	74	16	30	13	21	3	2			
Heart Disease Func-											
tional	33	149	28	42	20	42	6	7			
Anæmia	253	58	902	26	148	49	42	4			
Lungs:	000	20		10	7.0	_	_				
Bronchitis	308	26	530	12	10	2	5	_			
Other Non-T.B. Diseases	150	43	643	4	17	9	10				
eases Tuberculosis :	150	40	045	4	11	9	19	_			
Pulmonary Definite	1	1	11	3							
Pulmonary Suspected	10	3	32	15			1				
Non-Pulmonary—	10	3	32	10	1 -		1				
Glands	2	2	10	3	_	_	1				
Spine		ī	1	i							
Hip		1	$\overline{2}$	_	_	_	_	1_			
Other Bones and											
Joints	-	_		. —	_	1	_	_			
Skin		_	1	8 —	_	_		· —			
Other Forms	3	1	-	-	_	_		. 1			
Nervous System :—											
Epilepsy	6	2	13	9	<u> </u>	2	_	1			
Chorea	35	11	120	33	6	1	2	5			
Other Conditions	88	22	112	11	10	13	2	_			
Deformities :—	0.5	0.0		0		0.0					
Rickets	35	68	9	6	3	29	14	_			
Spinal Curvature Other Forms	$\begin{array}{c} 235 \\ 107 \end{array}$	$\begin{array}{c c} 41 \\ 97 \end{array}$	10 34	$\begin{array}{c} 3 \\ 17 \end{array}$	66	$\begin{array}{c} 37 \\ 62 \end{array}$	14	$egin{array}{ccc} 2 & 2 \ 2 & 2 \end{array}$			
Montal Candition	22	32	18	$\frac{17}{67}$	08	02		2			
Inf4:- D'	13	4	577	142			7	1			
Other Defects and	10	-4	911	142			1				
Diseases	553	85	7177	85	121	49	375	11			
Totals	6003	2551	17174	936	1677	1067	786	126			
					- 9						

TABLE II

# RETURN OF DEFECTS FOUND BY MEDICAL INSPECTION IN THE YEAR ENDED 31st DECEMBER, 1932.

	1	Special	Schools		ì	Nursery	School	s
		itine	Spec		Rot	ıtine	Spe	ecial
		ection of	Inspection No. of		Inspection No. of		Inspection No. ot	
		Defects		Defects		fects		fects
Defect or Disease	Requiring treatment	Requiring to be kept under observation but not requiring treatment	Requiring treatment	Requiring to be kept under observation but not requiring treatment	Requiring treatment	Requiring to be kept under observation but not requiring treatment	Requiring treatment	Requiring to be kept under observation but not requiring treatment
Malnutrition Uncleanliness (see Table IV,	16	_	5	1	23	2	12	-
Group V)		_				_	_	
Skin:								
Ringworm, Scalp	—	_	5		_		2	<u> </u>
Ringworm, Body	<u> </u>		8	_	$\frac{2}{2}$		4	
Scabies	<del>-</del>	_	16		6	-	5	-
Impetigo	3	_	92		10		20	
Other Škin	5	_	87		14	2	9	_
Eye: Blepharitis	10		35		9		4	
Confirmativitia	$\frac{10}{2}$		10		$\frac{\partial}{1}$		4	
TZ amadidia	$\begin{vmatrix} \frac{2}{2} \end{vmatrix}$		10					
Corneal Ulcers				1				
Corneal Opacities	_	2	_	_	_			
Defective Vision (Exc.								
Squint)	13	13	225	25	5	2	1	
Squint '	4	5	6	_	11	6	4	1
Other Conditions	_	8	20	_	5		_	
Ear:								
Defective Hearing	_	_	5	1	1		2	
Otitis Media	1	1	49		5	1	13	—
Other Ear Diseases		—	21	—	1		1	
Nose and Throat:						4.0		
Enlarged Tonsils	21	6	5	4	110	43	_	_
Adenoids	_	_	1		6	3		_
Enlarged Tonsils and	1	-	9		1.0	4	2	1
Adenoids	$\begin{vmatrix} 1 \\ 7 \end{vmatrix}$	$\begin{bmatrix} 1 \\ 2 \end{bmatrix}$	$\frac{2}{142}$	1	$\begin{array}{c} 16 \\ 23 \end{array}$	$\begin{bmatrix} 4 \\ 3 \end{bmatrix}$	Z	I
Other Conditions Enlarged Cervical Glands	,	4	142	1	40	0		
(Non T.B.)	12		41	1	16	11	-	-

### TABLE II—continued.

		Special	Schools			Nursery	Sahaali	
	Rou	tine	Spec	ial		tine		cial
	Inspe	ection	Inspec	ction	Inspection		Inspe	ction
	No. Def	of ects	No. of Defects		No. of Defects		No. of Defects	
								1
Defect or Disease		Requiring to be kept under observation but not requiring treatment	Requiring treatment	Requiring to be kept under observation but not requiring treatment	Requiring treatment	Requiring to be kept under observation but not requiring treatment	Requiring treatment	Requiring to be kept under observation but not requiring treatment
Defective Speech		2	1	1	1	2	_	1
Teeth—Dental Disease (see								
Table IV, Group IV)	_	1	13		8	1	_	
Heart and Circulation:								
Heart Disease, Organic	_	2	3	14	4	1	—	2
Heart Disease, Functional		3	2	1	2	5		-
Anæmia	7	2	12	7	7	5	10	_
Lungs:			1.5		4~		0	,
Bronchitis Other Non T.B. Diseases	2		15	_	45	2	9	1
	8	_	54		29	4	1	_
Tuberculosis: Pulmonary, Definite								
D. I			8	1			1	1
Non-Pulmonary:			0	1	_		1	1
Clanda		_	1					
Spine					_			
Hip		_					_	
Other Bones and Joints			_	_			_	
Skin	_	_	_	_				
Other Forms			1		_			_
Nervous System:								
Epilepsy		-	2	1	—	1	—	_
Chorea	_	-	7	_	1	1	_	
Other Conditions		-		1	2	2	_	—
Deformities:						_		
Rickets	1	3	1	1	12	13	2	2
Spinal Curvature	4	6	1	_			_	_
Other Forms	2	13	3	16	5	5		_
Mental Conditions		4	3	11	_	_		_
Infectious Diseases	3	$\frac{}{2}$	30	1	70	_	21	1
Other Defects and Diseases	3	Z	1045	28	70	2	56	4
Totals	124	76	1977	117	450	121	183	14
20000	1	,			1200		200	1 11

### TABLE II-continued.

B.—Number of Individual Children Found at Routine Medical Inspection to Require Treatment (Excluding Uncleanliness and Dental Disease).

				Number o	Percentage of		
	Group			Inspected	Found to Require Treatment	Children found to require Treatment	
Code Groups :— Entrants Intermediates Leavers	•••		•••	• • •	3894 3954 2673	1445 1447 819	37.11 $36.60$ $30.64$
Total (Code Grou	ıps)	•••	•••	•••	10521	3711	35.27
Other Routine Ir Other Ages	nspect 	ions:			949	376	39.62
Special Schools	•••	•••	•••		283	92	32.51
Nursery Schools	• •	•••	•••		330	153	46.36
Secondary Schoo including othe Secondary Sch	r age	s, Can	didates		5552	1265	22.78

RETURN OF ALL EXCEPTIONAL CHILDREN IN THE AREA.

TABLE III

#### Boys Girls Total At Certified Schools for the (1) Suitable for train-Blind 6 7 13 ing in a School for the At Public Elementary totally blind Schools At other Institutions 1 1 Blind (including At no School or Institution partially blind) At Certified Schools for the (2) Suitable for train-Blind or Partially Blind... 60 103 163 ing in a School for the At Public Elementary partially blind 8 13 21 Schools At other Institutions At no School or Institution 1 4 5 At Certified Schools for the (1) Suitable for train-Deaf 10 8 18 At Public Elementary ing in a School for the totally deaf or deaf 1 Schools 1 Deaf (including At other Institutions and dumb deaf and dumb 1 1 At no School or Institution and partially deaf) At Certified Schools for the Deaf or Partially Deaf ... 6 10 (2) Suitable for train-4 ing in a School for the At Public Elementary partially deaf Schools At other Institutions At no School or Institution At Certified Schools for Mentally DefectiveChildren 60 53 113 Feebleminded At Public Elementary Schools 2 2 At other Institutions Mentally 1 1 2 Defective At no School or Institution 3 12 Notified to the Local Details should be given on Mental Deficiency Form 307M Authority during the year At Certified Schools for **Epileptics** 4 $\overline{2}$ 6 At Certified Residential Open Air Schools 1 Suffering from severe At Certified Day Open Air epilepsy Schools **Epileptics** At Public Elementary Schools At other Institutions 1 1 At no School or Institution 1 3 2 Suffering from epilepsy At Public Elementary which is not severe Schools 7 3 10 At no School or Institution 1

### TABLE III—continued.

			Boys	Girls	Total
Physically Defective	Active pulmonary tuberculosis (includ- ing pleura and intra- thoracic glands)	Open Air Schools	10 - - - 7	13 — — — — 3	23 
	Quiescent or arrested pulmonary tuberculosis (including pleura and intrathoracic glands).	At Certified Day Open Air	$-\frac{26}{46}$	$ 20$ $\frac{26}{1}$	$  46$ $\frac{72}{6}$
	Tuberculosis of the peripheral glands	At Sanatoria or Sanatorium Schools approved by the Ministry of Health or the Board At Certified Residential Open Air Schools At Certified Day Open Air Schools At Public Elementary Schools At other Institutions At no School or Institution	6	6 - - - - 1	12 - - - 1
	Abdominal tuberculosis	At Sanatoria or Sanatorium Schools approved by the Ministry of Health or the Board At Certified Residential Open Air Schools At Certified Day Open Air Schools At Public Elementary Schools At other Institutions At no School or Institution			

			Bays	Girls	Total
- - I	Tuberculosis of bones and joints (not in- cluding deformities due to old tuber- culosis)	Ministry of Health or the Board	1 1	1 1	2
	Tuberculosis cf other organs (skin, etc.)	At Sanatoria or Hospital Schools approved by the Ministry of Health or the Board At Public Elementary Schools At other Institutions At no School or Institution			
	those included in other groups) whose general health renders	At Certified Day Cripple Schools At Certified Residential Open Air Schools At Certified Day Open Air Schools At Public Elementary	$ \begin{array}{c}     - \\     - \\     20 \\     235 \\     \hline     133 \\     \hline     9 $	$\begin{bmatrix} - \\ 20 \\ 220 \\ 127 \\ 2 \\ 13 \end{bmatrix}$	40 455 260 2 22
	tuberculous disease) who are suffering from a degree of crippling sufficiently severe to interfere materially	At Certified Day Cripple Schools At Certified Residential Open Air Schools At Certified Day Open Air	83 - - 2 5	65 - - 1 1	148 - - 3 - 6
whose defect is so severe as to necessitate the provision of educational facilities other than those of		At Certified Day Cripple Schools At Certified Residential Open Air Schools At Certified Day Open Air	$\begin{bmatrix} - \\ 31 \\ - \\ - \\ 2 \\ \hline 9 \end{bmatrix}$	34 - - 3 - 2	 65   5 11

## TABLE III—ADDENDA.

# CHILDREN SUFFERING FROM MULTIPLE DEFECTS.

	Combination of Defects	Sex	Type of School or Institution
-	Mentally Defective and Infantile Paralysis		F. Attending Certified School for Mentally Defectives
23	Blind and Epileptic	M.	In Mental Hospital
က	Blind and Epileptic	M.	Excluded from School Attendance
4	Mentally Defective and Infantile Paralysis	M.	Excluded from School Attendance
5	Mentally Defective and Infantile Paralysis	<u>ب</u>	F. Attending Certified School for Mentally Defectives
9	Mentally Defective and Epilepsy	<u></u>	Excluded from School Attendance
7	Mentally Defective and Epilepsy	<u></u>	Attending Certified School for Mentally Defectives
∞	Mentally Defective and Infantile Paralysis.	M.	Excluded from School Attendance
6	Blind and Deaf	: \( \tau \)	Excluded from School Attendance

### TABLE IV.

### RETURN OF DEFECTS TREATED DURING THE YEAR ENDED 31st DECEMBER, 1932.

### TREATMENT TABLE: ELEMENTARY SCHOOLS.

- Group 1.—Minor Ailments (excluding Uncleanliness, for which see Group V).

					Number of under treat		
Diseas	e or Defe	ect			Under the Authority's Scheme	Other- wise	Total
Skin:							
Ringworm, Scalp			•••		57		57
Ringworm, Body			•••		116	_	116
Scabies	•••	•••			209	1	210
Impetigo	•••	•••		• • •	1014	13	1027
Other Skin Disease	:S	• • •			559	24	583
Minor Eye Defects :-	_						
(External and other		t exclu	ıding	cases			
falling in Group	II)	•••	•••		769	8	777
Minor Ear Defects	•••	•••	• • •		801	30	831
Miscellaneous :							
(e.g., Minor Injuri	es, Br	uises, S	Sores,	Chil-			
blains, etc.)	•••	•••	•••	•••	5085	8	5093
Totals	•••	•••	•••	•••	8610	84	8694

### TABLE IV—GROUP 1—continued.

### SECONDARY SCHOOLS.

						treated, or ng the year
Disease or Defect				Under the Authority's Scheme	Other- wise	Total
Skin:—						
Ringworm, Scalp				2		2
Ringworm, Body	• • •	•••		6	_	6
Scabies			• • •	11	1	12
Impetigo			• • •	26		26
Other Skin Diseases	• • •		• • • •	86	10	96
Minor Eye Defects :—						
(External and other, but	exc	luding	cases			
falling in Group II)	• • •	•••	• • •	38	5	43
Minor Ear Defects		•••		53	2	55
Miscellaneous :—						
(e.g., Minor Injuries, Bru	ises,	Sores,	Chil-			
blains, etc.)	•••	•••	•••	251	2	253
Totals	•••	•••	•••	473	20	493

### SPECIAL SCHOOLS.

						Number of I treatme	efects treatent, during t	
	Defec	t or Dis	ease			Under the Authority's Scheme	Otherwise	Total
Skin:							-	
Ringworm,	Scalp	•••	•••	•••	•••	5		5
Ringworm,	Body		• • •	•••	•••	5 8	_ _ _	8
Scabies						16		16
Impetigo					•••	95		95
Other Škin	Diseas	ses	•••	•••	•••	92	_	92
Minor Eye De	efects (	Exter	nal and	dother	, but			
excluding						77	_	77
Minor Ear De	efects		•••	•••	´	76		76
Miscellaneous						10		
Sores, Ch						853	_	853
			Total	s		1222	_	1222

### TABLE IV-GROUP 1-continued.

### NURSERY SCHOOLS.

				efects tream	ted, or under he year
Defect or Disease			Under the Authority's Scheme	Otherwise	Total
Skin:					
Ringworm, Scalp	•••	• • •	2		2
Ringworm, Body	•••	•••	6		6
Scabies	•••	• • •	10	1	11
Impetigo	•••		<b>3</b> 0		<b>3</b> 0
Other Skin Diseases	•••	• • •	23	]	23
Minor Eye Defects (External a	nd other,	but			
excluding cases falling in	Group II	)	12	1	13
Minor Ear Defects	•••	•••	23		23
Miscellaneous (e.g. Minor Inju	ries, Bru	ises,			
Sores, Chilblains, etc.)		•••	69	_	69
Tot	als	•••	176	2	178

GROUP II—Defective Vision and Squint (excluding Minor Eye Defects treated as Minor Ailments—Group I).

	Nu	nmber of Defects	dealt with	
Defect or Disease	Under the Authority's Scheme	Submitted to refraction hy private practitioner or at hospital, apart from the Authority's Scheme	Other- wise	Total
Errors of Refraction (including Squint) (Operations for Squint are recorded separately in the Body of the Report) Other Defect or Disease of the Eyes (excluding those recorded in	2505	16	6	2527
Group I)	26	1		27
Totals	2531	17	6	2554

### GROUP II.—(Cont.).

Total number of children for whom	spectacle	s were pres	cribed :-	_				
(a) Under the Authority's Sch	eme		•••	1888				
(b) Otherwise $\dots$	•••		•••	9				
Total number of children who obta		ceived spect	acles :-					
(a) Under the Authority's Sch (b) Otherwise	eme	•••	•••	1775				
(a) Otherwise	•••	•••	•••	9				
SECONDARY SCHOOLS.  Number of Defects dealt with								
	Nur	mber of Defects of	dealt with					
Defect or Disease	Under the Authority's Scheme	Submitted to refraction by private practi- tioner or at hospital, apart from the Authority's Scheme	Other- wise	Totai				
Errors of Refraction (including Squint) (Operations for Squint are recorded separately in the Body of the Report) Other Defect or Disease of the Eyes (excluding those recorded in	702	133	16	851				
Group I)	5			5				
Total	707	133	16	856				
Total number of children for whom spectacles were prescribed:—								
(a) Under the Authority's School	eme			466				
(b) Otherwise			•••	17				
Total number of children who obtain (a) Under the Authority's Scho		ceived spect	acle <b>s</b> :—	431				
(b) Otherwise	•••	•••	•••	17				

### GROUP II—continued.

### SPECIAL SCHOOLS.

	Nu	mher of Defects	dealt with	
Defect or Disease	Under the Authority's Scheme	Suhmitted to refraction hy private practitioner or at hospital apart from the Authority's Scheme	Otherwise	Total
Errors of Refraction (including Squint). (Operations for Squint are recorded separately in the body of the Report) Other Defect or Disease of the eyes (excluding those recorded in Group 1)	239		_	239
Totals	239		_	239

Total	number of children for whom spectac	eles were	prescribed:—
	(a) Under the Authority's Scheme		230
	(b) Otherwise	•••	_
Total	number of children who obtained or	received	spectacles:—
	(a) Under the Authority's Scheme		222
	(b) Otherwise	•••	_

### NURSERY SCHOOLS.

	Nu	imber of Defects	dealt with	
Defect or Disease	Under the Authority's Scheme	Suhmitted to refraction hy private practitioner or at hospital apart from the Authority's Scheme	Otherwise	Total
Errors of Refraction (including Squint). (Operations for Squint are recorded separately in the body of the Report) Other Defect or Disease of the eyes (excluding those recorded in Group 1)	21	_		21
in Group 1)		_		
Totals	21			21

Total number of chil  (a) Under the A  (b) Otherwise		_	etacles	were pres	cribed:— 7 —
Total number of chil (a) Under the A (b) Otherwise			or reco	eived spec 	ctacles:— 7 —
GROUP III—Treatmen	t of Defe	cts of Nose	and T	hroat.	
	Under the Authority's Scheme in Clinic or Hospital	By Private Practitioner or at Hospital apart from the Authority's Scheme	Total	Received other forms of treatment	Total number treated
Elementary Schools Secondary Schools Special Schools Nursery Schools	697 19 19 39	$\frac{30}{2} - \frac{1}{1}$	727 21 19 40	1448 110 152 48	2175 131 171 88
Totals	774	33	807	1758	2565
GROUP IV—Dental Dental	who were		Ele	MENTARY	Schools.
(a) Hispected by Routine A		$ \begin{cases}     3e \\     3 \\     4 \\     5 \\     6 \\     7   \end{cases} $		35 32 51 348 358 327 790 341 320 715 451 36	otal 7404
Specials	•••		•••		4855
G	rand Tota	al	•••		12259

GROUP IV—Dental Defects (continued).			
(b) Found to require treatment	•••		10417
(c) Actually treated (d) Re-treated during the year as t	he:		7998
result of periodical examination	•••		1766
(2) Half-days devoted to Inspection	•••	89	
Treatment	•••	1113	
			1202
(3) Attendances made by children for treatme	ent		9764
(4) Fillings, Permanent Teeth	•••	2755	
Temporary Teeth	•••	431	
		<del></del>	3186
(5) Extractions, Permanent Teeth	•••	2989	
Temporary Teeth	•••	11112	7.4707
(0) A 1	c		14101
(6) Administrations of general anæsthetics : extractions	or		2004
(7) Other Operations, Permanent Teeth	•••	490	
Temporary Teeth	•••	219	
10mpo2a2y 10002	•••		709
Secondary Schoo	LS.		
(1) Number of children who were :—			
(a) Inspected by the Dentist			
Specials			800
Grand Total			800
	•••		
(b) Found to require treatment	•••		800
(c) Actually treated (d) Re-treated during the year as t	···		800
(d) Re-treated during the year as tresult of periodical examination	the 		299
(2) Half-days devoted to Inspection		_	
Treatment		33	
			33
(3) Attendances made by children for treatme	ent		1099
(4) Fillings, Permanent Teeth	•••	844	
Temporary Teeth	•••	1	0.45
			845

(5)	) Extractions,	Permanent Temporary		•••	•••	$\begin{array}{c} 759 \\ 227 \end{array}$		
(6)	) Administratio	ons of gener	ral anne	thatics	for			986
(0)	, •			···	••••			169
(7)	Other Operat	ions, Perma	anent Te	eth		85		
		Temp	orary Te	eth	•••	3		0.0
								88
GF	ROUP IV—Dent	al Defects.				Speci	al Sch	OOLS
(1)	Number of ch	ildren who	were:—					
• •	(a) Inspecte					• •	469	
	(b) Found to (c) Actually		eatment	• •	• •	• •	$\begin{array}{c} 469 \\ 469 \end{array}$	
	(d) Number		• •	• •	• •	• •	58	
(2)	Half-days dev		spection	and T	reatmen	t	66	
	Total Cases tr		••	•••	•=•	•••	527	
(4)	Fillings: Perm	anent Teet	h			379		
(+)		orary Teet		• •	• •	44		
,							423	
(5)	Extractions: 1	Permanent Temporary		• •	• •	$\frac{166}{257}$		
	4	emporary	166111	•••	• •		423	
(6)	Administratio	ns of genera	lanæsthe	etics fo	rextrac	tions	56	
(7)	Other Operati	ons: Perma	nent Tee	eth	8=0	412		
` ′	•		orary Te		00	108		
							520	
GP	oup IV—Dent	al Defects				Nursei	ov Scho	not s
						TVORSE	(I bon	JO <b>L</b> 5.
(1)	Number of chi	ted by the						46
		to require		 1t		•••	•••	46
		ly treated .						46
	(d) Number	er re-treated	i		• •••	•••	•••	4
(2)	Half-days dev	oted to Ins	pection a	and Tr	eatment	•••	•••	5
(3)	Total cases tre	ated .					•••	50
(4)	Fillings, Temp	orary Teetl	ı					1
(5)	Extractions, T	emporary 7	Teeth			•••	•••	79
(6)	Administration	s of genera	l anæstl	netics	for ext	ractions	•••	10
(7)	Other Operation	ons, Tempo	rary Tee	th		•••	•••	<b>-</b>

### GROUP V—Uncleanliness and Verminous Conditions.

### ELEMENTARY SCHOOLS.

(1) Average number of visits per school made during the year	
by the School Nurses	11.0
(2) Total number of examinations of children in the School by the School Nurses	149693
(3) Number of individual children found unclean	4210
(4) Number of children cleansed under arrangements made by the Local Education Authority	140
(5) Number of cases in which legal proceedings were taken :—	
(a) Under the Education Act, 1921	
(b) Under the School Attendance Byelaws	
SECONDARY SCHOOLS:	
(1) Average number of visits per school made during the year	
by the School Nurses	12.1
(2) Total number of examinations of children in the Schools by the School Nurses	3481
(3) Number of individual children found unclean	3
(4) Number of children cleansed under arrangements made by the Local Education Authority	_
(5) Number of cases in which legal proceedings were taken—	
(a) Under the Education Act, 1921	
(b) Under the School Attendance Byelaws	_
Special Schools:	
(1) Average number of visits per school made during the year by the School Nurses	51.8
(2) Total number of examinations of children in the schools by the School Nurses	10658
(3) Number of individual children found unclean	295
(4) Number of children cleansed under arrangements made by the Local Education Authority	31
5) Number of cases in which legal proceedings were taken—	91
(a) Under the Education Act, 1921	_

### NURSERY SCHOOLS:

37.6	e year 	ing th				nber of visits chool Nurses			(1)
8537	chools	the s				er of examin chool Nurses			(2)
388	•••	•••	clean	und un	ldren fo	individual chi	er of	Numb	(3)
23	made	nents	ranger	nder ai ority	insed u	children clea ocal Educatio	er of the I	Numb by	(4)
	en—	re tak	ngs we	roceedi	legal p	cases in which	er of	Numb	(5)
_	•••		•••	, 1921	ion Act	er the Educat	Und	(a)	
			elaws	ince By	Attenda	er the School	Und	(b)	

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TABLE V. AVERAGE HEIGHTS AND WEIGHTS.

10	Females 1543	Males Height C.M.	Weight	Females	1	-	-		1				
Males 1547 424 348	Females 1543	Height C.M.	Weight		les	Males	Š	Females	iles	Males	y,	Females	les.
8 1547 9 424 10 348	1543	123.0	Kilos.	Height C.M.	Weight Kilos.	Height C.M.	Weight Kilos.	Height C.M.	Weight Kilos.	Height C M.	Weight Kilos.	Height C.M.	Weight Kilos.
9 424 10 348	0 7 7	,	24.4	121.1	24.3						1	1	1
10 348	7.77	125.3	26.6	126.1	25.9	1					1	1	1
010	347	131.9	29.6	130.6	28.7	136.1	31.6	135.9	30.0	1	1	1	;
11 641	25 K	135.0	65	135.3	31.3	138.2	32.3	138.1	31.9	142.0	34.6	144.2	35.5
19 1798	1691	141.0	34.9	143.3	36.0	141.0	33.4	144.5	36.0	144.8	36.2	145.8	38.1
13 691	575	144.0	35.6	144.9	38.5	1	1	1	1	147.9	38.7	149.1	40.9
14 403	406	148.6	39.6	149.9	42.7	1	1		1	154.2	43.9	155.1	46.7
15 381	357	· } !	}	1		1		1	1	163.5	51.2	157.7	20.0
16 150	137	1	1				1	1	1	167.6	54.3	159.8	54.0
pt	94	1	1	1		1	1	1	1	170.9	2.09	161.9	57.0
over													

TABLE VI.
AVERAGE HEIGHTS AND WEIGHTS.

ENTRANTS.

	Number Examined		M	ales	Females		
Age	Males	Females	Height C.M.	Weight Kilos.	Height C.M.	Weight Kilos.	
3 4 5 6 7	149 401 1003 422 189	167 422 955 375 180	95·4 101·9 106·0 111·1 117·3	15·1 17·1 18·5 20·5 22·8	97.6 $103.2$ $106.1$ $114.1$ $116.5$	15·8 17·0 18·0 20·8 21·4	

TABLE VII.
AVERAGE HEIGHTS AND WEIGHTS. NURSERY CHILDREN.

	Number	examined	Ma	les	Females	
Age	Males	Females	Height C.M.	Weight Kilos.	Height C.M.	Weight Kilos,
2 3 4	8,3 55 28	75 64 23	83.7 $92.3$ $95.5$	13·0 14·9 15·6	84·4 91·7 95·8	12·4 14·6 15·0

TABLE VIII.
PARENTS PRESENT AT MEDICAL INSPECTION.

		MALES		FEMALES			
Group	Number of Children Examined	Number of Parents Present	Percentage of Parents Present	Number of Children Examined	Number of Parents Present	Percentage of Parents Present	
Entrants Intermediates Leavers Other Ages Junior	1975 1971 1365 449	1605 1429 485 255	81·3 72·5 35·5 56·8	1919 1983 1308 500	1580 1448 764 332	82·3 73·0 58·4 66·4	
Scholarships Secondary Schools	593 2387	424	71·5 1·8	513 2035	488	95.1 $22.9$	
Totals	8740	4241	48.5	8258	5077	61.5	

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